



NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

AN ANALYSIS OF THE IMPACT OF NON-DOD CONFERENCE POLICY CHANGE

September 2016

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**AN ANALYSIS OF THE IMPACT OF NON-DOD CONFERENCE POLICY
CHANGE**

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Submitted in partial fulfillment of the requirements for the degree of

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ABSTRACT

This report conducts a cost-benefit analysis of the policy implemented to scrutinize non-DOD conference attendance at the Naval Postgraduate School. Using historical conference travel data from FY12 to FY15, this analysis assesses the strengths and challenges associated with the current policy compared with the conventional process prior to the travel restrictions. The findings of the cost-benefit analysis identify the resource and labor expenses resulting from the increase in processing requirements. This report recommends an abridged process to improve the efficiency of processing non-DOD conference requests.

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LIST OF ACRONYMS AND ABBREVIATIONS

AACSB	Association to Advance Collegiate Schools of Business
ABET	Accreditation Board for Engineering and Technology
AO	Approving Official
ASA	Administrative Support Assistant
CBA	Cost Benefit Analysis
CONUS	Continental U.S.
DCMO	Deputy Chief Management Officer
DEPSECDEF	Deputy Secretary of Defense
DNS	Director, Navy Staff
DOD	Department of Defense
DON	Department of the Navy
DON/AA	Department of the Navy, Assistant for Administration
DTS	Defense Travel System
FY	Fiscal Year
GSBPP	Graduate School of Business and Public Policy
GSEAS	Graduate School of Engineering and Applied Sciences
GSOIS	Graduate School of Operations and Information Sciences
JTR	Joint Travel Regulations
LWOP	Leave Without Pay
M&IE	Meals and Incidental Expenses
NASPAA	Network of Schools of Public Policy, Affairs and Administration
NPS	Naval Postgraduate School
OCONUS	Outside Continental U.S.
ODTA	Official Defense Travel Administrator
OMB	Office of Management and Budget
POC	Point of Contact
SECNAV	Secretary of the Navy
SIGS	School of International Graduate Studies
TDY	Temporary Duty
WASC	Western Association of Schools and Colleges

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I. INTRODUCTION

Within the current changing budgetary environment of the Department of Defense (DOD), its various institutions face a growing pressure to keep costs down while striving to meet their mission objectives at the highest level. This fiscal climate dictates policies and procedures by which the respective branches and their institutions operate in order to meet their mission objectives.

Naval Postgraduate School (NPS), as a DOD-funded graduate academic institution, faces a considerable challenge in adapting to this tightening budgetary environment. The institution is unique in that it strives to achieve its goals in academia while meeting the expectations of a U.S. Navy enterprise.

One such challenge faced by NPS involves new travel restrictions for the attendance of non-DOD-hosted conferences. First introduced in April 2013 and fully implemented in May of that year, the policy change brought with it a process requirement far different from the conventional process, resulting in a degree of institutional adjustment. Using a cost-benefit analysis (CBA), this report conducts a systematic examination of the impact on NPS resource use generated by the restrictions on travel to non-DOD conferences.

A. RESEARCH QUESTIONS

This report addresses the following research questions:

1. Did the implementation of restrictive policies and control mechanisms regarding attendance of a non-DOD conference generate cost-savings in FY 2015, as compared with costs in FY 2013?
2. Were cost-savings offset by the spending associated with ensuring that the conference request packages met the criteria set forth in the conference guidance publications?
3. Did the conference restrictions cause a reduction in attendance?

The CBA used in this report examines the costs and benefits of three travel requests processing options, to include the conventional process used prior to the policy change, the multi-tiered process implemented as a result of the policy change, and an

abridged approval process proposed in this report. Through the analysis of historical conference travel voucher data, this study examines whether the conference restriction policy introduced in 2013 was successful in achieving the goal of reducing conference expenses by adopting the multi-tiered approval process to ensure accountability of the individual attendee and the institution as a whole.

The multi-tiered process for non-DOD conference travel authorization has the goal to reduce travel costs not deemed essential to the mission of the institution. However, the process is more involved than the conventional process. This report examines the labor cost resulting from the processing requirements introduced in 2013 using an activity-based costing methodology. In addition, this report analyzes the numerous other costs and benefits resulting from the policy change, some of which are non-tangible and, therefore, difficult to monetize.

The cost-benefit analysis used in this report will highlight the strengths and challenges of the new non-DOD conference travel policy, and will provide decision support for the recommendation of a new process that can better meet the needs of the stakeholders.

II. BACKGROUND

A. THE NPS MISSION AND THE VALUE OF CONFERENCE ATTENDANCE

NPS is unlike any other stand-alone academic institution or government organization in terms of its identity, stakeholders, and mission. It serves as an institution of higher education and learning for a student body composed of active duty U.S. military members representing all the branches of service, government civilians from a wide scope of organizations, and international students, both military and civilian, from over 40 friendly or ally countries. At the same time, NPS is an institution that enables its faculty and students to discover, pursue, perform, and further research efforts to better serve the needs of the Navy, its sister U.S. military branches, and the DOD as a whole. As stated in its mission statement, the goal of the institution is to educate members of the Armed Forces, and those associated with the DOD, on matters that improve national security.

The mission of the Naval Postgraduate School is to provide relevant and unique advanced education and research programs to increase the combat effectiveness of commissioned officers of the Naval Service to enhance the security of the United States. In support of the foregoing, and to sustain academic excellence, NPS and the DON foster and encourage a program of relevant and meritorious research which both supports the needs of the Navy and Department of Defense while building the intellectual capital of the Naval Postgraduate School faculty. (Naval Postgraduate School, n.d.)

The non-DOD conference plays an integral role in facilitating and accomplishing the tasks and/or requirements that are crucial to pursuing the academic mission of NPS. In aggregate, the NPS population (faculty, students, and staff) attends a large volume of conferences every academic year (AY). Conference attendance is essential to the professional development of the attendees, to include their ability to stay current with their academic discipline advances, and their ability to bring to the classroom the newest findings that can advance the skills and critical thinking of NPS students. By participating in academic conference meetings, the faculty can stay active in their academic fields by

engaging in exchanges, disseminating the newest methods and findings in the respective disciplines, and presenting their work and inviting feedback to strengthen their contribution to their field of study. Non-DOD conference travel allows for professional networking opportunities with other scholars and subject matter experts. Conferences also facilitate the exchange of ideas to expand current and future research efforts, the knowledge of new research developments, the identification and introduction to potential research sponsors (both in the Navy as well as other DOD constituents), the presentation of theses by students and their advisors, the course development and curriculum planning efforts for instructors, the publication and dissemination of research work, and the promotion potential for non-tenured faculty members.

Among these, networking is one of the essential elements for identifying potential sponsors for sponsored research efforts. To wit, NPS faculty members are able to secure a funding source by which they may guarantee their own salary. It also enables civilian academic institutions to collaborate on research efforts made by NPS faculty/students, which, in turn, can and have gained recognition and notice from the international community.

Furthermore, the faculty members that are selected and/or invited to present their papers at non-DOD hosted conferences represent NPS in a legitimate and professional capacity, as subject experts in their respective fields. The restrictions that are preventing attendance can reflect poorly on faculty members while simultaneously risking the reputation of the school.

A large portion of the non-DOD conferences that NPS faculty members attend and present at are those that are sponsored by scholarly and professional organizations recognized by accreditation bodies. These organizations include the Accreditation Board for Engineering and Technology (ABET), the Association to Advance Collegiate Schools of Business (AACSB), the Western Association of Schools and Colleges (WASC), and the Network of Schools of Public Policy, Affairs and Administration (NASPAA). Such conferences are essential in the efforts to ensure that the school is aware and compliant with the accreditation requirements. These requirements, in turn, are a certified stamp of approval of legitimacy for the curricula taught at NPS via its Graduate School of

Engineering and Applied Sciences (GSEAS), Graduate School of Business and Public Policy (GSBPP), School of International Graduate Studies (SIGS), and the Graduate School of Operations and Information Sciences (GSOIS). NPS is presently accredited by all four organizations (NPS, n.d.).

The ability of a member of the NPS community to attend a non-DOD conference, therefore, goes beyond simply attending a conference. The action of attendance bears considerable academic responsibility along with secondary and even tertiary orders of effects that affect matters of professional reputation, academic expectations, and collaborative opportunities. However, the significant budgetary obstacles originating at the presidential level, which then coupled with tumultuous funding discussions at the congressional level, have altogether created a fiscal climate that was not conducive to, nor supportive of, a more autonomous exercise of discretion for matters such as non-DOD conference attendances.

B. THE FISCAL CLIMATE OF NPS

With the plethora of competing interests in the president's annual budget, the Department of Defense, with its large portion of discretionary spending, is often the source for restrictions and ensuing budgetary reductions. With the DOD budget experiencing fluctuations in response to economic and political interests (Figure 1), NPS experienced its own downward trending operating budget. The drop-off in NPS's total operating budget for Fiscal Year (FY) 2012 to FY 2013, as seen in Figure 2, parallels the decline in the DOD's budget for the same time frame.

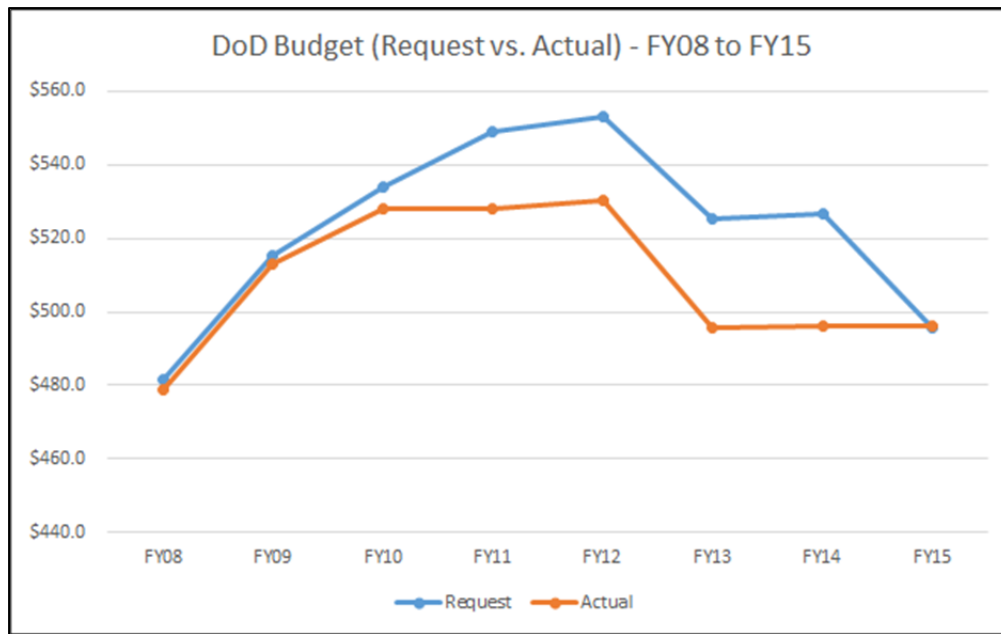


Figure 1. DOD Budget (Request versus Actual), FY08 to FY15. Data from Under Secretary of Defense (Comptroller) (2016).

The two figures capture the downward sloping trend, depicting a sharp decline in the DOD budget from FY 2012 to FY 2013, when the NPS operating budget also dropped from \$588 million to \$488 million.

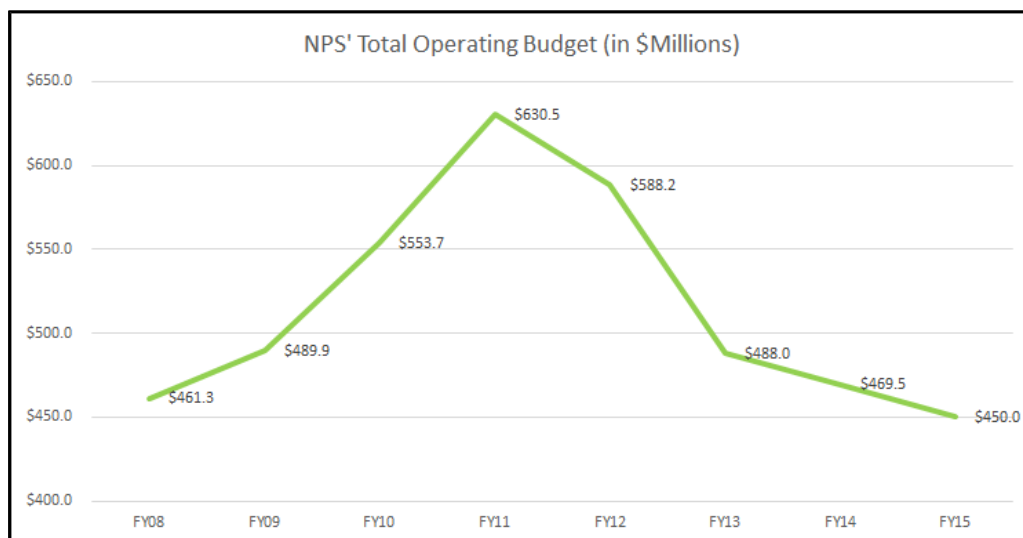


Figure 2. NPS Operation Budget between FY08 and FY15. Data from Naval Postgraduate School Public Affairs Office (2014).

Fiscal years 2011 and 2012 were of a particular challenge to the Naval Postgraduate School. With the effects of budgetary discord in Washington, DC, the Naval Postgraduate School experienced considerable anxiety in the months leading up to the sequester, which went into effect on 1 March 2012. In the months that followed sequestration, ambiguity compounded the uncertainty as FY 2011 began to draw to a close and FY 2012 loomed in the near distance. Worst fears became actualized on 1 October 2013 when the furlough went into effect. NPS civilians (both, faculty and staff) signed their individual notices and were left unable to work until the budget crisis was resolved. These facts are critical in establishing the climate within which the Naval Postgraduate School, along with other DOD institutions, found itself for the period that the analysis for this report is taking place.

C. MEMORANDUMS LEADING TO PROCEDURAL CHANGE

Beginning in 2011, as part of an effort to reduce federal spending, a series of memoranda were released by the Office of Management and Budget (OMB), the Deputy Secretary of Defense (DEPSECDEF), Presidential Executive Orders, and the Deputy Chief Management Officer (DCMO) that addressed and outlined the requirement to reduce travel expenses related to non-DOD hosted conferences. These requirements were part of an overarching theme of exercising greater fiduciary responsibility in government spending, in response to the President Obama's Executive Order 13576 released on 13 June 2011, "Delivering an Efficient, Effective and Accountable Government." This report focuses on the requirements of cost-reduction policies and procedures related to subsequent travel activities facilitating attendances to non-DOD hosted conferences. It is necessary, however, to understand the genesis of the policies and procedures that were implemented with the goal to limit and/or restrict non-DOD conference attendances in mind. Table 1 depicts the timeline of the published memoranda and orders.

Table 1. Timeline of Publications and Source of Issuance

Publication Date	Publication Title	Source of Issuance
13-Jun-11	Delivering an Efficient, Effective and Accountable Government (EO 13576)	Executive Order
17-Aug-11	Delivering an Efficient, Effective and Accountable Government	OMB
21-Sep-11	Eliminating Excess Conference Spending and Promoting Efficiency in Government	OMB
9-Nov-11	Promoting Efficient Spending (EO 13589)	Executive Order
11-May-12	Promoting Efficient Spending to Support Agency Operations	OMB
29-Sep-12	Implementation of Conference Oversight Requirements and Delegation of Conference Approval Authority	DEPSECDEF
5-Apr-13	Conference Approval Authority Guidance	DON, Chief of Naval Personnel
6-Nov-13	Implementation of Updated Conference Oversight Requirements (DOD Conference Guidance v 2.0)	DCMO
23-Sep-15	Updated DOD Conference Guidance (DOD Conference Guidance v 3.0)	DEPSECDEF

The initial actionable steps to implement restrictions on conference activities first began with an OMB memorandum, “Eliminating Excess Conference Spending and Promoting Efficiency in Government,” released on 21 September 2011. This memorandum began to articulate the generalities of EO 13576 and specifically address conferences.

Until such time as the Deputy Secretary (or equivalent) can certify that the appropriate policies and controls are in place to mitigate the risk of inappropriate spending practices with regard to conferences, approval of conference-related activities and expenses shall be cleared through the Deputy Secretary (or equivalent). (Lew, 2011b)

Executive Order 13589, which specifically named and targeted travel as a specific area of cost reduction, highlighted further instructions and cost-savings goals. Within “Travel,” President Obama called for “appropriate efforts” in managing expenditures related to hosting or sponsoring conferences affecting the federal government. Signed and put into effect on 9 November 2011, this particular Executive Order, titled “Promoting Efficient Spending,” directed agencies to reduce the combined costs of administrative

categories by, “not less than 20 percent in FY 2013 from FY 2010 levels.” This Executive Order sought to actualize the president’s wish to pursue, “an aggressive agenda for reducing administrative costs,” and provide greater articulation as a follow-up to Executive Order 13576 as well as the aforementioned OMB memorandum from September of that year.

The subsequent follow-up to this Executive Order was a memorandum issued by the Office of Management and Budget (OMB) in 11 May 2012. This memorandum, titled “Promoting Efficient Spending to Support Agency Operations,” sought to classify cost-savings opportunities to meet the requirements of Executive Order 13589 and proposed four specific sections of interest to include travel, conferences, real property, and fleet management. This memorandum was addressed to the heads of executive departments and agencies.

For purposes of this analysis, Section 1 (Travel) and Section 2 (Conference) of this memorandum from OMB are the most relevant, as they directly engage the areas of Travel and Conferences, respectively. While both areas are distinct in that not all government travel is in support of conference attendance or are conference related, there is a direct correlation between the two subject areas as travel expenditures are unavoidable, in most cases, when attending a conference.

Section 1 of this OMB memorandum addressed travel, with the memorandum calling for a 30% reduction in travel expenses from travel-related expenditures in FY 2010. Furthermore, agencies were directed to provide, in their respective FY 2014 budget submissions, a description of how the travel reductions were to be sustainable through FY 2016. The onus of reducing travel costs was placed squarely upon the agencies. These actions were to both actively seek out opportunities to reduce travel expenses (sharing taxis, as an example) and evaluate travel needs while exercising greater discretion on travel actions.

Section 2 of the memorandum addressed conferences. Inclusive within this section are the topics of conference sponsorship, conference hosting, and attendance of federal employees to conferences hosted by non-federal entities. Section 2 served as a follow-up

and expansion upon another OMB memorandum, “Eliminating Excess Conference Spending and Promoting Efficiency in Government,” issued on 21 September 2011.

Specifically, Section 2 of this memorandum laid out the groundwork for a series of new policies and practices for the sponsorship, hosting, and attendance of conferences. Primarily, the items for agency action included the requirement for senior level (deputy secretary and/or equivalent rating) review of all planned conferences; senior level review of future conferences in excess of \$100,000; prohibition of expenses in excess of \$500,000 for a single conference; public disclosure of expenses for conferences in excess of \$100,000. In essence, this memorandum laid the procedural foundation upon which the instruction for non-DOD conference approvals would take place at the Naval Postgraduate School.

On 9 September 2012, the Office of the Deputy Secretary of Defense issued a memorandum outlining and firmly establishing the approval authorities with regard to conferences (both DOD and non-DOD hosted). This DEPSECDEF memorandum titled, “Implementation of Conference Oversight Requirements and Delegation of Conference Approval Authority,” listed the various approving authorities for the various federal agencies. Both the Secretary and Deputy Secretary of Defense were accountable for all of the conference activity related to the entire DOD. Within the Department of the Navy (DON), the approving authorities listed for conferences hosted by the Navy exceeding \$500,000 were the Secretary of the Navy and the Under Secretary of the Navy. These two approving authorities were also responsible for approving all conferences hosted by non-DOD entities where in which the total cost of attendance to the Navy exceeded \$20,000. Following this elaboration, the memorandum also cites the definition of a conference, as prescribed by the Joint Travel Regulations (JTR), as well as the identification and definition of subsequent conference expenses. Finally, this memorandum called for a plan of action by which agencies would provide reports aggregating information for the public, both annually and quarterly.

However, it was not until 5 April 2013 that the DON received specific guidance on how to request attendance to a conference hosted by a non-DOD entity. Up until this point, the memorandums mentioned above addressed DOD-hosted and non-DOD hosted

conferences in aggregate. This memorandum, “Conference Approval Authority Guidance,” was the turning point at which the Navy and its organizations (to include the Naval Postgraduate School) received articulated guidance and, with that guidance, the expectation of compliance with regard to non-DOD hosted conferences. The memo was distributed to the Naval Postgraduate School leadership on 9 April 2013, and a policy for submitting request for attendance (attendance as a presenter or non-presenter) was implemented shortly after in May of that year.

The NPS Travel Office, along with input and approval from NPS leadership, created an internal process to introduce the new guidance to the faculty, staff and students without disrupting the overall mission of NPS. The process was a major change for the school, especially for the faculty members that were to present at conferences in support of publication and research efforts.

The process required a 60-day lead time prior to the actual attendance of the conference in order for the request to route through the appropriate chains. After numerous tweaks and changes (based on feedback from faculty and leadership), the process was improved to reduce the required lead time down to 45 days. Prior to the process, there was no formal lead time requirement. The improvement allowed for less involvement from the conference attendees, and, instead, increased the responsibility on the support staff at the individual department level as well as at the travel office level. As established by the travel office, the attendance approval procedure bore two phases. The non-DOD conference attendance package (to include documents and costing figures) would have to route through NPS leadership to obtain the NPS president’s recommendation via signed memorandum. Upon receipt of this signed memorandum from the NPS president, the package would then move on to the second phase where the Director, Navy Staff (DNS) and the Department of the Navy Assistant for Administration (DON/AA) would grant their approvals. Only after the approval from DON/AA was granted, could the attendee attend the conference.

The conference attendance environment for the Naval Postgraduate School adhered to the requirements as disseminated by the Deputy Secretary of Defense. NPS then implemented a set of policies and procedures to meet the requisite obligations in

reducing costs associated with non-DOD conferences specifically. This analysis seeks to quantify the cost effectiveness of policies implemented for the purposes of cost-savings with regard to the attendance of non-DOD hosted conferences. For that purpose, we present below the procedural standards that were in place before the new non-DOD conference travel procedures.

D. PROCEDURAL STANDARDS PRIOR TO THE NEW POLICY ON NON-DOD CONFERENCE TRAVEL

Prior to the implementation of the non-DOD conference restriction policy, conference attendances were treated like any other temporary duty (TDY) travel. One of the significant differences distinguishing the period prior to the policy change was that the attendees or their respective department administrative personnel, to include Official Defense Travel Administrators (ODTA) and Administrative Support Assistants (ASA), were responsible for and free to enter their own DTS travel arrangements. All federal travel, however, was held accountable to the rules and restrictions from the Joint Travel Regulations (JTR). The JTR is the regulatory publication for all uniformed members of the United States, all DOD civilians, and civilians traveling on DOD funding. The JTR contains the regulations for all matters related to travel, transportation, and relocation. Given this, all travel authorizations and the subsequent travel vouchers from NPS were to be processed in accordance with the JTR. Apart from this adherence to the JTR, which was (and currently is) applicable to all DOD entities conducting travel, there were no supplementary restrictions mandated across the span of the DOD. However, NPS did have its own institutional-level business practices regarding travel, but these were already in existence prior to the non-DOD conference policy. Therefore, the implementation of the travel restrictions for non-DOD conferences was a significant upheaval of the current standard operating expectations at NPS.

E. PROCEDURAL STANDARDS ASSOCIATED WITH THE NEW POLICY ON NON-DOD CONFERENCE TRAVEL

Closely following the heels of the DON policy changes for non-DOD conferences and the travel associated with them, the first major impact, at the institutional level, was

the transfer of conference and conference travel oversight to the NPS Travel Office. Due to the specific parameters required in the attendance request, it was decided by NPS leadership that the travel office, as being the in-house subject matter experts on travel regulations, would assume ownership and oversight of the conference requests that would now need to be submitted to DNS for DON/AA approvals. The travel office would be the first-tier vetting entity of the conference request at the institutional level and would also coordinate the travel requirements for these conferences. Their expertise, extensive knowledge, and experience made them the suitable handlers for all matters related to conferences and conference travel. With the new policy in place, there would be additional travel regulatory restrictions that would need to be accounted for; there were several aspects of conference travel that the new non-DOD conference policy targeted in particular. These areas included actual lodging expenses, the use of rental cars, and the overall travel expenses compared against the overall length of the travel. Subsequently, due to these added caveats, all DTS entries pertaining to conference travel were to be entered only by a member of the travel office, instead of the standard practice of having the individual or department-level administration input the travel reservations.

1. DTS Travel Input

As referenced above, one of the first major changes was that conference attendees, nor the administrative personnel at the department level (GS-3 to GS-7), were permitted to enter non-DOD conference travel. Prior to the procedure, the conference travel could be entered into DTS by the attendee or their department's ODTA. Due to the restrictions for conference travel, it was decided that the travel office would take over all conference travel matters to include the actual booking of travel as well as internal tracking mechanisms for all non-DOD conference attendance requests. The intention was that because the members of the travel office were the resident subject matter experts in DTS, the JTR, and the evolving non-DOD conference policies, the responsibility of processing attendance requests would, from start to finish, be within their purview and oversight.

A more specific result of the travel office oversight of the DTS entries was the stricter determination of the flight itineraries of the attendees. By placing the travel

arrangement responsibility with the travel office, DTS entries could be guaranteed to be in accordance with both JTR and non-DOD conference travel restrictions. At the same time, cost-savings could be facilitated by having attendees depart from one of the various airports in the surrounding area (Monterey Regional, San Jose International, San Francisco International, or Oakland International). Depending on the destination, the travel office would determine which departing location would be most cost effective as well as practical, to ensure the mission was accomplished appropriately. Again, the vast experience and overall familiarity with travel matters made the insight and expertise of the travel office the decision authority on airports and routing.

2. Actual Lodging Expenses

“Actual lodging” is a term referring to a lodging expense that exceeds a TDY location’s established per diem rate. The cost increase requires the approval from the department’s approving official (AO). To receive reimbursement for the cost-increase, the traveler must provide an explanation and justification as to why the increased lodging expense was necessary. This explanation must receive approval from the department AO. With the AO’s approval of the explanation and justification of the cost increase, the travel office is then able to proceed with approving the expenditure on the voucher and thereby reimburse the traveler the “actual” cost of lodging.

For example, the maximum lodging rate for Monterey, CA, in October 2015 was \$134 per night. This rate does not take into account the taxes associated with the lodging expense. Due to a popular tourist event in the area, the rates can increase to \$150 per night. With the nearest hotel offering the per-diem rate of \$134 being 20 miles away, the traveler has no choice but to book at the \$150 per night rate. The traveler would then seek approval from his/her respective department AO (typically the department chair, department head, deans, or chief of staff). If the AO concurs with the justification, the email approving the action would be attached to the travel voucher and uploaded into DTS. At this point, the traveler can be reimbursed at \$150 per night vice the per diem maximum of \$134.

Actual lodging expenses were more carefully scrutinized and generally prohibited with the advent of the non-DOD conference policy change. Extensive justification had to be provided and a cost comparison conducted to prove that the actual lodging expense was necessary or unavoidable. As an example, assume a particular conference is being hosted in a particular hotel site, whose lodging rate would exceed the maximum per diem rate for that TDY site. However, due to the conference being hosted in a given hotel, the traveler would not require transportation expenses to go back and forth to the conference from a different hotel location. Despite the lodging rate being over the maximum lodging rate for that TDY location, the absence of transportation costs would offset the added lodging expense and be favorable to the government in cost-savings.

Pre-approval for such extenuating circumstances by DON/AA was required by the NPS travel office as part of the overall conference approval. The explicit approval for the lodging requirement was to be articulated in the non-DOD conference approval memo signed by the DON/AA approval authority. The approval made after-the-fact by NPS AOs was not permitted and attendees who incurred lodging rates exceeding the maximum per diem rates had to pay the difference out of pocket.

3. Rental Car Expenses

Another conference travel expense that became severely restricted was the use of rental cars. The JTR does state that the rental car is not an entitlement, and as such, it must be approved by the AO. This stipulation that the use of a rental car is a privilege and not an entitlement was and still is applicable to all regular TDY travel. However, in terms of the non-DOD conference policy, rental cars required extensive justification and the provision demonstrating the cost-savings for approval of use of rental car by DON/AA. On the rare occasions that a rental car was permitted, it typically supported multiple attendees to the same conference, as individual taxi conveyances would prove to be costlier than the use of a single rental car. In most situations, however, a round-trip taxi fare from the destination airport to the attendee's hotel and back was the most cost effective option. In an effort to promote a more prompt approval of the non-DOD conference request, a rental car was not included on the conference brief sheet.

4. Conference Travel Parameters

a. *Length of Conference Attendance*

Another stipulation surrounding the cost of the conference attendance was a \$3,000 overall threshold per attendee and a \$600-per-day threshold per attendee. These thresholds were directly affected by conference registration costs, travel costs, and duration of the attendance. In the event of a threshold increase in either the overall cost or the per day cost, a justification or explanation had to be provided.

As an example, assume a conference is held in Stuttgart, Germany, between a Monday and a Friday. Due to the overseas location, the attendee must depart on a Saturday to arrive on Sunday. The time-change means that the traveler is losing time flying to Europe. The return flight is scheduled for the next Saturday. The time change allows the traveler to gain time and would return stateside on that same Saturday. Using the per diem rates for July 2015, the nightly lodging rate is \$252 and the daily meals and incidentals rate (M&IE) is \$122. Altogether, the per diem rate (inclusive of the lodging rate and M&IE) is \$374. On travel days, the M&IE is 75% of the full day rate. Table 2 demonstrates the travel cost breakdown of this conference attendance example.

Table 2. Conference Travel Cost Breakdown Example.

Breakdown	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Totals
Airfare	\$500							\$500	\$1000
Lodging		\$252	\$252	\$252	\$252	\$252	\$252		\$1512
M&IE	\$91.5	\$122	\$122	\$122	\$122	\$122	\$122	\$91.5	\$915
Taxi-Terminal	\$40	\$40						\$80	\$160
Taxi-TDY		\$15	\$15	\$15	\$15	\$15	\$15		\$75
								Cost	\$3,662

Data used to create this table include unpublished data from Defense Travel System and published data from GSA (2015).

Over a course of eight days, the complete cost of travel (which does not include the cost of the conference registration fee) is \$3,662. This gives a daily cost average of \$732.40. In this example, the attendee's conference registration fee was omitted to keep the focus on the travel cost for the conference. In light of this, the \$3,662 is the final cost

of travel. In this example, the cost per day exceeds the \$600/per day threshold along with the total cost threshold of \$3,000. As a result, this conference requires an explanation of the increase in cost, in the memo. For this example, a sample explanation for the cost increase could be the amalgamation of the taxi expenses as the lodging site required daily transportation expenses to/from the conference site along with a generally higher per diem rate for an OCONUS site. The goal of presenting this example is to demonstrate the scope and depth of the cost analysis and subsequent explanation and justification that, altogether, become part of the non-DOD conference package that is produced by the travel office and sent up through the approval stages.

b. Conference Request Lead Times

(1) 45-Day Lead Time

A lead time of 45 days was required for all non-DOD conferences under the \$100,000 threshold. This would provide approximately 15 days for internal routing within NPS and 30 days for submission to DNS in order to meet DON/AA's 30-day lead time requirement. This threshold was adapted from the original threshold of \$20,000. In the original stages of the process, all requests that exceeded \$20,000 needed approval at the SECNAV level.

(2) 120-Day Lead Time

Conferences that exceeded \$100,000 would require a lead time of 120 days. Thirty days would be earmarked for internal processing through NPS' approval stages, and the remaining 90 days earmarked to route through DNS, DON/AA, and the SECNAV. More often than not, the reason for the \$100,000 threshold increase was due to multiple DON organizations sending multiple people to the conference. With a large populous of DON attendees, the cost threshold would be easily exceeded. In an effort to ensure approval was granted in a timely manner, the lead time requirement was increased.

c. Restriction of Additional Travel Expenses

To ensure thresholds were not exceeded, additional expenses such as internet usage fees, phone calls, taxi fares not specifically used for transportation to and from airports, and excess baggage expenses were limited or prohibited entirely from the requests. As these expenses were not considered to be mission essential, a very detailed justification was required to have them included on the brief sheet. The policy change required that the calculation of these supplemental expenses be far more thorough and premeditated, as demonstrated by Table 2, than with another form of travel. Much of the conference travel was stripped down to the essentials (airfare, lodging, and meals).

d. Airport Locations

Another factor aimed at reducing costs required the travel office to select the airport departure location and, in some cases, the destination airport. For instance, in situations where the destination had multiple airports, the travel office would determine which option would be the most cost effective. Washington, DC, and New York were frequent destinations where this practice was most effective. More often than not, there was a significant cost reduction resulting from this practice.

III. LITERATURE REVIEW

This chapter reviews the most relevant and current studies that form the basis for the analysis' framework in this report. Foster's 2008 study, "Analyzing the Cost and Effectiveness of Governmental Policies," is particularly useful to reference because it conducts a cost-based analysis of an administrative process, although in a different context. Foster uses activity-based costing to examine the cost of processing a domestic violence case at multiple levels. Similar to the approach for this report, Foster's (2008) methodology involved a breakdown of labor expenses into an hourly dollar rate charged by the entities involved at various levels in the processing of the domestic violence case. Specifically, Foster examines the use of activity-based costing to quantify the cost but also to quantify the effectiveness of governmental policies.

The cost analysis conducted by Foster broke down the annual expense of domestic violence in West Virginia in separate categories (law enforcement, family court, magistrate court, public defender, and WV coalition against domestic violence). Within each category, it then produced tiered subset entities (for example, for law enforcement, it considered two entities state police and local police-sheriff); each tiered subset entity bore an hourly personnel cost and overhead cost. It then further aggregated the hourly personnel cost and overhead cost to generate the total hourly cost (for the state police and local police-sheriff, in this example). By calculating the number of hours invested in the activity of these entities (in this continuing example, the activity being arrests), Foster was able to determine the total cost of law enforcement by multiplying the total number of hours spent in the arrest activity with the total hourly cost.

This methodology applied to entities such as judges, legal clerks, bailiffs, court time, and lawyers, thereby generating a highly focused examination of cost involved in processing a domestic violence case. Foster acknowledges that not all costs can be determined nor can they be extrapolated from the aggregate. The research design in Foster's work is concerned with providing an answer to a hypothesis within a specified set of parameters with regard to the data. In this similar vein, the research conducted for

this report seeks to provide a specified set of research parameters by which analysis is undertaken.

The methodology used by Foster is similar as the approach to be taken in the research design of this project. The research design for this project calls for two sets of conference travel voucher data to be collected. The conference voucher is key, as it denotes the final travel cost of a conference attendance. The first set of data consists of vouchers before 30 April 2013, while the second data set consists of vouchers post when the non-DOD conference policy was in full effect at NPS. Much like the cost summary laid forth by Foster, the research design for this project will isolate and simplify processing expenses, which will then be added onto the travel voucher expenses to provide a comprehensive cost of a conference in this second data range.

Foster (2008) finds that in order for there to be a greater degree of accuracy in capturing costs, more effort and more data must be collected and along that, improved methodologies to do so as the sheer volume of service spending is too great. The author also suggests that policies ought to be evaluated on whether the desired goals were achieved.

Another study with relevance to our analysis is the research by Arora (2011) titled “Corporate Diversification, Bureaucratic Costs and Likelihood of Bankruptcy.” Arora calls into question the cost effects of bureaucracy by demonstrating a direct correlation between a corporate firm’s likelihood for bankruptcy and the firm’s bureaucratic costs increase. The concept of bureaucracy may be considered the equivalent to the policies and procedures put in place to restrict non-DOD conference attendances.

In essence, the procedures for non-DOD conference attendance are of a bureaucratic influence. The glaring contradiction here is that federally funded entities, such as the Naval Postgraduate School, are not like corporate firms whose design and nature are inherently profit-based. The NPS mission, as a federally funded higher-learning institution of the Navy, is not about increasing profits but about training, educating, and pursuing research and academics in a manner beneficial to the Navy and other participating branches (Army, Air Force, Marine Corps, Coast Guard, FBI, etc.)

while utilizing federal funds in a cost-effective manner. These goals are for the overall good of the nation and of the taxpayers. While this is not a traditionally quantified form of “profit” as a corporate firm may annotate, these advances in personnel and research are assets that are beneficial to the Navy, and to the DOD as a whole.

However, the common denominator between NPS and a corporate firm is that both entities are organizations that must maximize efficiency and efficacy in their use of limited resources. This universally shared resource dependence perspective lays the framework of drawing a parallel between two dissimilar organization types. In addition, the avoidance of “organizational death” is another shared trait in the challenge of an organization’s sustainability and success based on that organization’s internal policies and procedures. For NPS, survival and the avoidance of organizational death is the ability to demonstrate value to ensure continuity of federal funding while also being recognized as an accredited academic institution. NPS’s “profit” is not profit in the traditional sense so much as it is the demonstration of value. To that end, NPS must be able to continue to sustain value and produce value (education, research). The bureaucracy that Arora (2011) references, has the equivalent of rigorous conference restrictions that end up being an impediment to the NPS faculty, students, and staff working towards fulfilling the functions, expectations, and responsibilities of academia.

The key, then, is the implementation of policy and procedures that relate to effective and efficient performance. Arora (2011) posits that there is a relationship between diversification strategy and how well that strategy is implemented. Thus, the higher the bureaucratic costs of strategy implementation, the greater the chances that organizational failure (or organizational death) is likely. For NPS, that failure can be in the form of detrimental repercussions to sponsored research, academic development of students, and overall opportunity costs due to bureaucratic costs in processing non-DOD conference packages. While NPS is not concerned with diversification like the corporate firm, there is relevance in the implementation of strategy for its cost-savings measures. In the case of this report, we will examine the procedures and policies that have established the non-DOD conference request process.

Policy, by nature, has an effect on procedure and organizational functionality before implementation and after implementation. Furthermore, its effects can be either positive or negative.

Mehay and Webb (2005) examine whether a zero-tolerance drug policy is successful in organizations such as the military. The article examines the effects of the zero tolerance policy as it pertains to drug-use in the Navy. The authors show that implementing a strict policy can have a positive effect on the organization's goal to reduce the number of illegal drug users. Mehay and Webb's cost-benefit analysis is informative in framing the analysis of this report as it aims to examine how implementing a policy to reduce costs associated can actually reduce the productivity of the organization and may in turn cost more in the long-run. Mehay and Webb compare the drug usage rates in 1980, just prior to the implementation of the policy change with the usage rates from 1985, a few years after the implementation in 1981. Similar to the data analysis by Mehay and Webb, this report will use data before and after the implementation of the non-DOD conference policy. It will then break down the data to determine whether the increase of labor costs were an efficient use of funds.

The non-DOD conference policy imposed strict guidelines for parties planning to attend a conference hosted by a non-DOD entity. The interested party was required to complete multiple documents and include a detailed justification stating how attendance at the specified conference would benefit the mission of NPS in order to receive attendance approval. This policy seemed to reduce the efficiency of all individuals involved in the process and was met with harsh criticism.

While there have been some cost savings in relation to the non-DOD conference process, there have also been a waste of resources to include manpower hours, opportunity costs, reduction of morale, and the cost of not being able to attend due to inadequate lead time, which thwarts the NPS mission.

Policies, such as the zero-tolerance policy, use extreme tactics to ensure the rules are being executed properly. Such policies are often implemented quickly and with no time to adapt to the change. This may work for an organization whose culture is such that

authority flows top-down and the span of control is narrow. Within the military, a directive can be issued and its members must abide by the directed order with little room to voice grievances against the order. There is a fundamental difference between the Naval Postgraduate School and that of an atypical naval base. It may be such that there is a culture clash within NPS where the culture of academia is in conflict with the culture of the military. Thus, while these types of mandated policies can and do work in some organizations, others can benefit more from policies that are implemented more gradually. This can give members of the organization the time to adapt and accept the policy rather than fight against it; thereby avoiding conflict that can manifest itself to be a detriment to the mission.

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IV. METHODOLOGY

This report uses a cost benefit analysis (CBA) decision-making tool to investigate, analyze, and review the strengths and shortcomings of the new non-DOD conference travel procedural rules. The CBA approach enables us to identify, quantify and compare the impact of a given policy change. In the case of this project, the CBA examines the conference restriction policy and subsequent procedures involved with processing non-DOD conferences at NPS. The project seeks to answer the question as to whether the policy and procedures promote an effective allocation of resources.

The CBA consist of some basic steps; it begins with establishing the main impacts of the policy in question, it continues with the identification of the explicit assumptions about costs and benefits relating to the analysis and how the costs and benefits are to be monetized. The third step involves the careful evaluation of all the scenarios or courses of action, and it ends with the validation of the findings through sensitivity analysis. The OMB Circular A-94 document, which provides guidance for performing CBA for government programs or projects encourages the use of the CBA in federal government as its objective is to

promote efficient resource allocation through well-informed decision-making by the Federal Government. It provides general guidance for conducting benefit-cost and cost-effectiveness analyses. It also provides specific guidance on the discount rates to be used in evaluating Federal programs whose benefits and costs are distributed over time. The general guidance will serve as a checklist of whether an agency has considered and properly dealt with all the elements for sound benefit-cost and cost-effectiveness analyses. (Office of Management and Budget, 2015)

The CBA allows for the retroactive analysis of the policy's impacts on those affected by the policy or procedural change. There are elements to the costs and benefits that are both quantifiable (for example, the total cost of attendance to account for, to include processing costs in terms of labor resources) as well as those that are non-quantifiable (for example, the opportunity cost of being unable to attend a conference due to a more restrictive policy). By identifying, analyzing and attempting to monetize these costs and benefits, this study presents a more complete picture in illustrating the impact

of policy on the individual and on the institution, the strengths and shortcomings of the new non-DOD conference travel procedural rules relative to the standard procedure.

In order to draw a conclusion based on the data collected for this report, the CBA begins with establishing the alternate processes that are analyzed in comparison. The conventional process refers to the period of time during which NPS did not have a formalized non-DOD conference policy in place. The multi-tiered approval process refers to the process that was adopted by NPS after the introduction of the policy change. The abridged approval process is a third process, proposed in this report, to be discussed in the next chapter. The CBA then identifies two perspectives, that of the individual (conference attendee) and that of the institution (NPS). These two perspectives have differing costs and benefits that provide greater insight to the impact of the policy on the stakeholders. Next, the CBA seeks to quantify and monetize these impacts, some negative (costs), and some positive (benefits). As mentioned above, not all costs and not all benefits can be easily expressed in dollars (monetized). Based on the monetized impacts, costs are then compared with the benefits to compute the net benefits of each of the three processes examined. A sensitivity analysis is then performed to validate the findings and to take into account the uncertainty involved in monetizing the impacts. The main outcome of the CBA is the highlighting of the strengths and shortcomings of the new non-DOD conference travel procedural rules relative to the standard procedure, and the formulation of recommendations for improvement of the procedural steps and outcomes.

A. RESEARCH PURPOSE

Prior to the implementation of the policy and subsequent approval process, all travel for all NPS personnel was treated the same, as TDY. There was no differentiation between the categories of travel. Non-DOD hosted conference travel was therefore handled the same as any other TDY travel; there was no requirement for additional justification and processing efforts. The added procedure, resulting from the new policy, however, required NPS to increase the duties of numerous administrative personnel (to include civilians and active-duty military members).

The practical impact of the policy change was such that the final approval to attend a non-DOD conference, as a representative of NPS, must come from the Department of Navy, Assistant for Administration (DON/AA). The DON/AA evaluation would only come after a request had undergone an evaluative process within NPS and received approval from the NPS president. Even after receiving the NPS president's approval as endorsement, DON/AA could still deny a conference. Subsequently, failure to receive a timely DON/AA approval would result in the prohibition of attendance to any conference hosted by a non-DOD entity, regardless of invitation or degree of participation in the conference event, to include presenters, session chairs, and invited keynote speakers. Therefore, with the increased likelihood of the individual's inability to attend a conference (denials due to inadequate justification, late submission, or extended processing time) arose a corresponding number of deleterious effects that had potential to be detrimental to the overall mission of NPS as an institution, as well as the professional obligations, expectations, and responsibilities of the individual. To minimize these negative outcomes, the institution, while simultaneously enforcing the policy, had to create a process by which conferences would be evaluated and endorsed for final approval from DON/AA. This then caused an increase in time and duties for the personnel involved in the approval process within NPS. The objective of this CBA is to quantify the process cost and to identify the non-quantifiable costs and benefits of the policy impact.

B. RESEARCH DESIGN

The CBA for this project consists of five distinct steps.

1. We first establish and describe the three alternative processes that are subject to the CBA. These three processes possess varying degrees of policy effect, ranging from none (the conventional process) to some (abridged procedure, proposed in this report), to significant (current multi-tiered process).
2. The second step of the CBA identifies the perspectives (or standing) for the costs and benefits. There are two key perspectives from which this analysis will take place; they are that of the individual (the conference attendee) and that of the institution (NPS).

3. The third step identifies the impacts from each of the three processes that are analyzed. These impacts are identified as either costs or benefits, for each of the two perspectives.
4. The fourth step of this CBA discusses the options for monetizing the quantifiable impacts, and identifies the non-quantifiable impacts. There are numerous elements of costs and benefits that are difficult to monetize, yet are critical to evaluating the processes and understanding their effects upon the individual and institutional perspectives. Their relevance, while not articulated in dollars, is inherent in understanding the ramifications of policy effect.
5. The fifth, and final, step of the CBA is a sensitivity analysis whereby an examination of the best-case and worst-case scenarios is performed to validate the findings. Based on the findings from this CBA, recommendations for the improving the processes regarding approval of non-DOD conference travel are presented.

The cost-benefit analysis developed in this study uses data from two sources: the Defense Travel System (DTS), and the NPS Non-DOD Conference Wiki. Together, these data sources provide two samples of attended conferences: one, for the period pre-policy change, the other, for the period when the new non-DOD conference attendance policy in place.

The first set of data includes conference voucher costs of 100 randomly selected non-DOD conferences that took place between 1 October 2011 and 30 April 2013. This data set represents the conventional process, where there were no policies in place to influence procedures. The approved travel vouchers of each attendee for each of these 100 conferences will quantify the cost of the non-DOD conference attendances facilitated by the conventional process. As there was no policy in effect during the time the conventional process was in place, there are no process costs. The data that comes from this period establishes the baseline for comparison of the process options as these costs are exclusive to the travel itself and do not bear any supplementary processing costs.

The second set of data, including vouchers from 100 randomly selected non-DOD conferences that took place between 1 October 2013 and 30 April 2015, covers the time period during which the non-DOD conference policy change was in effect at the Naval Postgraduate School. The approved vouchers of each attendee for each of the conferences

will be collected to, first, capture the travel expenditures. However, in conjunction with the reported costs of travel, the processing costs will also be taken into account to reflect the cumulative cost of conferences resulting from the policy change. The process cost included in this project is limited to costs within NPS and does not extend to DNS and DON/AA.

The conventional process for approving non-DOD conferences requires the submission of a package containing the non-DOD conference request form, non-DOD conference brief sheet, and a signed non-DOD conference cover letter. These three deliverables represent the quantifiable cost of the process. By using an activity-based costing methodology, the processing costs associated with each of the deliverables will be monetized.

The second data sample will also reference the NPS Non-DOD Conference Wiki to determine the overall timeline for the approval process. From the point of initial submission into the NPS approval process, the wiki worked to track each conference to the point of final approval from DON/AA. This, in turn, enables us to measure the number of days a given conference package took to receive final approval from DON/AA once the request package had left NPS purview. As the scope of this project is limited to examining the NPS approval process for non-DOD conferences, this set of metrics is particularly useful in providing insightful context for the time requirement needed by DNS and DON/AA to process a non-DOD conference. The examination of this timeline can facilitate a discussion from observations pertaining to the DNS and DON/AA exclusive process costs, ripple-effects affecting the individual requestor resulting from untimely approvals (the risk of and actual delayed notification), and questions regarding the overall allocation of manpower resources for the sake of measurable accountability in accordance with policy requirements.

C. RESEARCH QUESTIONS AND HYPOTHESES

There are three research questions this project seeks to address.

1. Did the implementation of restrictive policy and subsequent control mechanisms to attend a non-DOD conference incur cost-savings?

2. Were the cost-savings gained offset by greater resources being spent to process conference requests to ensure that the request packages had met the criteria set forth in the conference guidance publications?
3. Did the conference restrictions cause a reduction in attendance?

The hypotheses for each of these questions are as follows:

1. The policy did affect cost savings, as limitations were in place to influence both the volume of attendances and the nature of travel expenditures.
2. The process costs involved with initiating, compiling, and routing a complete non-DOD conference package exceeded the cost-savings.
3. The restrictions did reduce the number of conferences attended and the number of attendees in comparison with the prior fiscal years.

The overarching hypothesis of this project is that the cost savings that resulted from the conference restriction policy will be offset by the process costs that materialized in an effort to meet policy criteria; the findings from the CBA will highlight the strength and shortcomings of the current non-DOD conference travel approval process and will likely lead to identifying a more cost-effective allocation of manpower resources in the form of a more efficient process.

The current non-DOD conference travel policy requires NPS administrative personnel and leadership to closely monitor all requests that are submitted by the NPS community. The processing expenses in vetting a conference request prior to submission to DON/AA are not accounted for in the total cost of the conference. Furthermore, the processing expenses incurred by DON/AA are also absent in the cost estimates of the conference. However, for the purpose of this project, the process cost examination is being limited to NPS and does not account for DON/AA's expenses.

With the NPS process requirements in place, there are costs and benefits that can be quantified and other costs and benefits that are more difficult to quantify. The primary quantifiable expense is the labor that goes into the vetting process. From the department's administrative personnel to the NPS president, the processing work at the various stages of the non-DOD conference procedure requires time from numerous entities in numerous positions across the campus. Specifically, the NPS conference approval process requires a deliverable of the three main documents that comprise a complete package that is

routed to the NPS president for approval (the non-DOD conference request form, the non-DOD conference brief sheet, and the non-DOD conference cover letter). Due diligence requires that the entities involved in the process for these documents must evaluate all of the packages to ensure that each package meets the requirements necessary to progress through the workflow. Each package is, therefore, closely reviewed by multiple personnel in varying approval stages in order to ensure that the need for attendance in compliance with the process. Based on first-hand experience and historical observation from the authors' time working in the travel office, the labor requirements for building and processing the package can therefore be monetized.

D. EXPLICIT ASSUMPTIONS

The assumptions used in the CBA conducted in this project are as follows:

- The scope of this CBA is limited only to the Naval Postgraduate School and does not take into consideration other DON institutions.
- The intent of policy is to reduce fraud, waste, and abuse.
- Conference attendance has value to the individual and to the institution.
- The need to attend a conference is legitimate and not frivolous.
- The faculty attends conferences in order to satisfy their professional obligations and requirements.
- The inability to attend conferences due to disapproval and/or insufficient processing time bears an overall negative impact to the individual and to the institution.
- The term “attendance” is inclusive of those who are presenters, participants (panel members, session chairs, organizers, etc.), and non-participating attendees.
- The processing of conference requests is an added task for the Chief of Staff, NPS president, Administration Office, and the Travel Office.
- Conference processing requirements are also an added task and function for DNS and DON/AA.

- While the DSN and DON/AA labor metrics are unknown, they have their own processing costs.
- That NPS representation at conferences is vital for maintaining accreditation.
- Most conference requests will require some degree of rework.
- Not all costs and benefits to the individual and to the institution are quantifiable.

V. COST-BENEFIT ANALYSIS

A. IDENTIFYING THE ALTERNATE PROCESS

This analysis begins with establishing three alternate processes for evaluation.

1. Process 1: The Conventional Process
2. Process 2: The Multi-Tiered Approval Process
3. Process 3: An Abridged Approval Process

Process 1, the conventional process, establishes the baseline against which the other two processes will be evaluated. Process 1 references a pre-policy period of time where there was no restrictive policy regarding non-DOD conferences.

Process 2 identifies the current policy change where non-DOD conferences must be approved in two stages. The first stage is internal to NPS and is complete once the NPS president has approved the submitted non-DOD conference package. The second stage requires final approval from DON/AA.

Process 3 suggests an abridged process that limits the scope of approval to that of the NPS president, therefore removing the DON/AA approval requirement and shortening the overall process while maintaining a rigorous oversight.

1. Process 1: The Conventional Process

Process 1, the conventional process, reflects the absence of any non-DOD conference restriction policy. This means that there is no formal approval process for the attendance of a conference hosted by a non-DOD entity. Primarily, the approval for the conference would be limited to the appropriate approving official of the attendee, but within the DTS system. Attendees would simply enter in their DTS travel authorization to attend the conference as though it were any other atypical TDY travel authorization. The travel authorization would move through the attendees' designated routing list within DTS. Approval to conduct the conference travel would be determined and granted by the attendees' respective AO.

In the department setting, the AO is typically the department chair. For staff, the AO is typically a senior-level supervisor. For students, the AO would also be their respective curriculum's department chair.

Prior to the introduction and implementation of the non-DOD conference policy, the administrative staff within a given department did not need to expend labor resources to process conference attendance request packages. Likewise, the members of the travel office did not need to input labor resources to process, track, and modify the attendance request packages. Simply put, the key members involved in the multi-tiered approval process did not have these duties and responsibilities during the period of the conventional process. One perspective is to view the conference attendance "process" as being limited to that of the pre-existing DTS routing list.

In practice, Process 1 would mean oversight and approval of conference travel would exist at the department level with no oversight from the Travel Office, DNS, or DON/AA. In addition, to an absence of a formalized approval procedure exclusive to conferences, there would also be an absence of any cost-thresholds for the conference expenses. For all intents and purposes, conference travel would not be segregated from the standard operating procedures of regular TDY travel.

2. Process 2: The Multi-Tiered Approval Process

The second process maintains the current policy change to keep a multi-tiered approval process that begins within NPS and ends with the final approval authority coming from DON/AA. The current policy change identifies DON/AA as the approval authority for all conference attendances that are less than \$100,000 and the SECNAV as being the approval authority for conferences that are in excess of \$100,000.

The stages of approval resulting from this multi-tiered approval requirement are itemized as follows (personal knowledge of authors):

Table 3. The Multi-Tiered Approval Process

Stages	Description of Actions At Each Stage
1	Faculty member, staff member, or student recognizes the need to attend a conference and visits the Naval Postgraduate School's non-DOD conference wiki page.
2	The attendee or their designated administrative staff completes a non-DOD conference request form, found on the non-DOD conference wiki page. A detailed justification for attendance, in relation to the NPS mission, is inputted into the form. The form is then signed by the respective approving official (at the department level).
3	<p>The signed non-DOD conference request form is uploaded to the non-DOD conference wiki, along with a conference agenda. A travel assistant then prepares the non-DOD conference brief sheet (with cost estimates generated from the Defense Travel System) along with the non-DOD conference cover letter (to eventually be signed by the NPS president).</p> <p>The non-DOD conference cover letter can be drafted by either the travel assistant, travel officer, Yeoman Petty Officer 1 (or 2), or stashed naval officer.</p>
4	The whole conference package, which includes the non-DOD conference request form, non-DOD Conference brief sheet, and the non-DOD conference cover letter (unsigned), are then submitted to the NPS chief of staff for review and approval.
5	Once approved by the chief of staff the package routes to the NPS provost for approval.
6	Once approved by the provost, the package then routes to the NPS president.
7	The conference memorandum is place on NPS letterhead by the NPS president's front office staff and then routed to the president for signature and approval
8	Once the NPS president approves, the package is sent to the front office of the Director of Navy Staff (DNS) and is officially entered into the naval conference tracker and issued a unique tracking identifier.
9	Once approved by DNS the package is sent to the Department of the Navy, Assistant for Administration (DON/AA) for final approval.

At any point, the conference package may be returned to the Travel Office Assistant for rework in the form of edits, corrections, or clarification by the NPS president, DNS, or DON/AA. In addition, a completed conference package that is submitted in a timely manner and progresses through the latter stages will be subject to delay via rework and resubmission if any additional NPS personnel requests attendance to that conference. In essence, a non-DOD conference request package that has received final approval from DON/AA would have to be recycled through the entire process if other NPS members wish to attend the conference and were not on the initial package.

After DON/AA has approved the conference package, the attendee(s) is authorized to proceed with attending the conference. In the event that DON/AA does not approve the conference, the attendee(s), or their administrative personnel, must cancel their travel reservations in the Defense Travel System (DTS). The only legal means of attending the conference in this situation would be for the attendee(s) to pay for their own means of travel out-of-pocket and to be in a Leave Without Pay (LWOP) status. This is a scenario that has not occurred at NPS during the date range that this report is analyzing

3. Process 3: An Abridged Approval Process

The third process is to have the existing approval process abridged and have the final approval authority be relegated to the first flag-level officer (or SES equivalent) in the requesting organization's command hierarchy. Within NPS, this approval entity would be the NPS president. The result of this process option would be that the scope and extent to which a conference is processed, is limited to within the NPS as an institution. The following table represents the abridge process as adapted from the multi-tiered process above.

Table 4. An Abridged Approval Process

Stages	Description of Actions At Each Stage
1	Faculty member, staff member, or student recognizes the need to attend a conference and visits the Naval Postgraduate School's non-DOD conference wiki.
2	The attendee or their designated administrative staff completes a non-DOD conference request form, found on the non-DOD conference wiki. A detailed justification for attendance, in relation to the NPS mission, is inputted into the form. The form is then signed by the respective approving official (at the department level).
3	The signed non-DOD conference request form is uploaded to the non-DOD conference wiki, along with a conference agenda. A travel assistant then prepares the non-DOD conference brief sheet (with cost estimates generated from the Defense Travel System) along with the non-DOD conference cover letter (to eventually be signed by the NPS president). The non-DOD conference cover letter can be drafted by either the travel assistant, travel officer, Yeoman Petty Officer 1 (or 2), or stashed naval officer.
4	The whole conference package, which includes the non-DOD conference request form, non-DOD conference brief sheet, and the non-DOD conference cover letter (unsigned), are then submitted to the NPS Chief of Staff for review and approval.
5	Once approved by the Chief of Staff the package routes to the NPS provost for approval.
6	Once approved by the provost, the package then routes to the NPS president.
7	The conference memorandum is place on NPS letterhead by the NPS president's front office staff and then routed to the president for signature and final approval authority.

B. IDENTIFYING PERSPECTIVES FOR THE COSTS AND BENEFITS

There are two perspectives regarding the costs and benefits associated with the three processes examined here. These perspectives include that of the individual (conference requestor), and that of the institution (the Naval Postgraduate School as the policy enforcer).

C. IDENTIFYING IMPACTS (INDIVIDUAL AND INSTITUTIONAL)

1. Process 1: The Conventional Process

a. Individual

With the conventional process, the primary benefit for the attendee is the time saved from not having to submit a formal request. The individual avoids having to undergo an evaluative process to attend a non-DOD conference. An associated benefit to the conventional process is that it mitigates the risk of a non-approval decision due to the rigidity of the process lead time. In the past, the lead time requirement and process length has led to the prevention of the attendee from traveling to the conference (denial for late submission or late approval). This process also allows multiple individuals to attend the same conference without being limited to a set number of slots resulting from cost-thresholds.

The conventional process also reduces the actual processing costs, via labor expenditures, associated with the non-DOD conference process.

b. Institution

A mechanical benefit to the structure of the conventional process is the lack of any height in the process design. Simply put, travel is entered into DTS (for a conference or for any other form of TDY) and within that existing approval infrastructure, the determination for approval or denial can be made at the level of the approving official. The attendance can be approved or denied by a supervisory entity and does not need to be escalated any higher. In practicality, this means that attendees do not risk the opportunity cost of being denied permission to attend a conference resulting from process rigidity. The variables influencing denial or disapproval are limited to the determination of the requestor's AO. What results is a quantifiable benefit to the institution via reduced labor expenses resulting from the absence of processing requirements. The conventional process mitigates the cost of additional labor expenditures for the personnel involved through all stages of the process. Ranging from the ODTA to the NPS president, the conventional process allows for the abolition of all labor costs associated with processing non-DOD conferences. In addition, due to the absence of the non-DOD conference

process, faculty and staff can utilize their resources (time and energy) for other tasks that are beneficial to the institution. The campus community can better focus on its primary duties and responsibilities.

The cost to the institution, however, is that conference travel expenses are not monitored and may bear unrestricted costs. As such, attendees may not exercise discretion with regards to travel expenditures in support of the conference attendance. This can lead to an unnecessary and uncontrolled increase to travel costs. Additionally, the absence of a formalized vetting process may allow for attendances to conferences that are not necessarily mission-critical, which can also contribute to increased costs.

2. Process 2: Multi-Tiered Approval Process

a. Individual

The benefit to the individual is that there is a full vetting process, at multiple tiers that can formally attest to the essentiality of the conference attendance. This in turn allows the individual to benefit from a ready state of auditability for his/her conference activities. Subsequently, another cost of a multi-tiered approval process is the extensive labor requirements involved in generating and routing a complete non-DOD conference package through both the NPS hierarchy and that of DNS and DON/AA.

In turn, the length of the approval process, which may jeopardize the guarantee of a timely approval action, can prevent a requestor's attendance to a requested conference. This inability to attend a conference (because of a late approval, denial, or disapproval decision), calls into question the opportunity cost of not being able to attend the conference. The opportunity costs of the individual affect the institution, as the individual is a representative of the institution.

b. Institution

Similarly, the benefit to the institution is the same as that of the individual, albeit to a greater degree. The matter of a formalized and documented endorsement, by the NPS president and DON/AA, is an irrefutable attestation to the legitimacy and mission essentiality of a requestor's conference attendance. At the institutional level, the multi-

tiered process serves to not only track conference activities and encourage greater travel expense discretion, but to also promote a culture of accountability regarding the institution's conference activities. An added benefit to this is a constant state of readiness for potential audits.

On the other hand, the multi-tiered approval process requires that the institution be able to facilitate and handle an even greater latency period between a request submission and the approval of that submission. The institution will have to adapt to be able to meet the lead time expectations of the approval stages outside of the institution. While this may require greater planning and forethought on the part of an attendee, there is also a greater degree of rigidity to the approval process. Not all late submissions for attendance are the result of poor planning or lack of foresight. The circumstances for a late submission may not be the direct fault of an attendee, but external variables that are not in the control of the attendee, nor the institution. The rigidity, therefore, can cost the institution as its member may be denied attendance resulting from these circumstances. Tangential to this scenario, an attendee may simply ignore an opportunity due to the rigidity of the mechanism. The ripple effects of process rigidity can negatively impact the professional duties and responsibilities of both the individual and the institution. While the costs of this multi-tiered process amplify that of Process 1, the benefits are not.

3. Process 3: An Abridged Approval Process

a. Individual

The benefit to the individual attendee is that there is a shorter lead time required for processing. This in turn reduces the risk of process rigidity and introduces a degree of process flexibility. At the same time, similar to Process 2, the individual benefits from a formalized endorsement that concurs with the mission-critical nature of the conference attendance. As referenced in Process 2, the added benefit of the approval process is that the merits of a conference activity are above scrutiny.

The cost, however, is that there is still a risk (though to a reduced degree compared to that of Process 2) that the process may interfere with a timely approval

action. There is also the time commitment from the requestor to be able to provide adequate justification and input during the course of the process.

b. Institution

The benefit of an abridged approval process to the institution is that the scope of the approval stages is limited to that of the NPS president. While this is a shared benefit with that of the individual perspective, from the perspective of the institution this process offers a formalized accountability measure that bears a reduced labor requirement than that of Process 2. While the labor expense of DNS and DON/AA are not counted, nor included, in this analysis, it must be assumed that the absence of their process costs is to the benefit of NPS in terms of re-work requests from DNS and DON/AA. The formal request process and approval from the NPS president serves to satisfy the need for accountability, but without increased institutional rigidity. In essence, the process serves as an internal control mechanism to minimize excessive costs (in travel and attendances) while further validating legitimate requests. A by-product of this accountability is that this abridged process also contributes to the institution's auditability in the event of any investigation.

The cost to the institution by having an abridged process is that there will still be a latency period during which the conference attendance request is being processed and routed. This can create process and routing choke points that can jeopardize a timely approval. Regardless of the scope, a vetting process still requires a labor requirement from the entities involved. This process would still bear a process cost as the non-DOD conference packages would require the supporting documents referenced earlier.

Tables 5 and 6 summarize the two perspectives by highlighting the positive impacts (benefits), and the negative impacts (costs) for each one of the three processes examined in this CBA. The data in the following tables is derived from the non-DOD conference request packages.

Table 5. Individual Perspective of Costs and Benefits

Processes	Individual Perspective	
Process 1 - The Conventional Process	Benefits	Costs
	Absence of process cost expenditures (labor and time)	Unrestricted conference travel cost
	Time used for preparing requests can be used elsewhere	
	Ease of attendance leads to opportunity benefits (reduced chance of missed opportunity)	
Process 2- Multi-Tiered Approval Process	Benefits	Costs
	Endorsement of attendance by NPS president and external oversight entity (DNS and DON/AA)	Process requirements demand time and labor from attendee to justify request
		Time and labor requirements focused on the request cannot be used toward other duties and responsibilities
		Risk of conference denial can result negatively towards individual professional outcomes and obligations
Process 3 - An Abridged Approval Process	Benefits	Costs
	Reduced lead time required for processing translates into time and labor cost savings	Process requirements demand time and labor from attendee to justify request
	Endorsement of attendance by NPS president	Time and labor requirements focused on the request cannot be used toward other duties and responsibilities
	Shortened approval process minimizes risk of denial or late approval	Risk of conference denial can result negatively towards individual professional outcomes and obligations

Table 6. Institutional Perspective of Costs and Benefits

Processes	Institutional Perspective	
Process 1 - The Conventional Process	Benefits	Costs
	Reduced administrative burden (labor) in processing requests (within the department, Travel Office, and Mezzanine)	Unrestricted travel costs
Process 2 - Multi-Tiered Approval Process	Benefits	Costs
	Accountability, both internal to the institution and external (DNS and DON/AA)	Added administrative burden (labor) within the institution to process the requests
	Improved management and oversight of conference attendance expenses and related travel expenditures	Added administrative burden (labor) outside of the institution (DNS, DON/AA) to process the requests
	Processes ensure that only mission-critical	Requirement for increased lead times for submitting requests (greater inflexibility) due to second tier approval stage
	Process serves as a control mechanism to reduce fraud, waste, abuse	
Process 3 - An Abridged Approval Process	Benefits	Costs
	Internal accountability tool	Added administrative burden (labor) within the institution to process the requests
	Ready state of auditability	Risk of attendees not being able to attend
	Internal oversight of conference attendance activity	Opportunity cost of not being able to attend a conference
	Reduce risk of excessive conference attendance	Need for lead times for requests (inflexibility)
	Control mechanism to reduce fraud, waste, and abuse	

D. MONETIZING THE IMPACTS

1. Cost Reduction

This project predicts that the conference restriction will reduce the cost of conference attendance, based on the limitation of attendees and the restriction of travel expenses. It is anticipated that the vetting process to directly affect the cost as it limits

attendances to those who are active participants (presenter, speaker, organizer, etc.), while appraising cost expenditures. In particular, non-DOD hosted conferences that are renowned industry-specific events that are widely attended from premier institutions in that discipline, will be affected in particular. The restrictions place a cap on the cost threshold for attendees across all the DON institutions (number of attendees and their individual costs). As an example, the costs from attendees at NPS must be taken into account alongside the cost of attendees from the Naval Academy for a conference that both institutions may attend. The cumulative cost threshold for attendees within the DON, is set at \$100,000. Simply put, if the average cost of attendance is \$2,000 per attendee, only 50 DON members may attend. An excess of 50 attendees would then require there to be SECNAV approval. SECNAV approval required a greater lead time (120 days) and institutions, to include NPS, were encouraged to limit the attendees based on their degree of participation at the conference.

2. Labor Cost

Another prediction is that there is an added labor cost associated with the impact of the policy restriction. Inherent in compliance with the policy, is a labor requirement to generate, input, and route the non-DOD conference request form, the non-DOD conference brief sheet, and the non-DOD conference cover letter. These three documents, as the complete non-DOD conference package, must move through the various stages of processing to receive approval by the NPS president, before being sent off to DNS and then to DON/AA for final approval. Internal to NPS, the non-DOD conference package receives labor input from entities within the requestor's department along with the travel office before it is escalated up to the Chief of Staff, the NPS provost, and finally the NPS president. Therefore, conference attendance request requires time and labor from multiple personnel within these stages; with those requirements, there is a cost associated. While the labor expense can be quantified and monetized, the cost figure that is generated is a generalized estimation of the process expense.

E. MONETIZING THE QUANTIFIABLE IMPACTS AND IDENTIFYING THE NON-QUANTIFIABLE IMPACTS

1. Data Collection for Quantifying Labor Costs

a. Approved Voucher Report

The approved voucher report was pulled from the Defense Travel system (DTS) to include all approved vouchers beginning 1 October 2011 and ending 30 April 2015. The data was then separated into two spreadsheets for the two date parameters being used in this study. The first data sample consisted of approved vouchers beginning 1 October 2011 through 30 April 2013. The second data sample consisted of approved vouchers beginning 1 October 2013 through 30 April 2015. For purposes of continuity, the two sets of data were filtered to cover the same timeframe of their selected years.

The two data samples were further filtered to include trip purposes selected as “Conference Attendance” to remove all data points that were unrelated to conference travel. Each data sample was then randomized through Microsoft Excel to eliminate sampling bias and to select 100 unique conferences from each date period, such that no one conference was used twice regardless of its number of attendees. The random sample of 100 conferences allows for the CBA to be conducted in the time frame allocated for this report.

For both of the two data sets, the total cost of the conference, the total cost per attendee, and the total number of attendees were recorded. In order to determine, in greater detail, the cost results, each of the 100 conferences from each data sample were searched individually through the unfiltered voucher report to include all approved vouchers in order to find all trips associated with a given conference. The costs for each attendee were added to determine the total cost of the conference and then divided by the number of attendees to determine the average cost per attendee.

These costs helped to determine if the conference process resulted in an overall reduction of costs of conference travel. This assisted in determining the overall effect of the conference process as a cost reduction for the Department of the Navy. It assumed that the 100 conference sample is an adequate representation of the conferences attended over that time period.

b. Non-DOD Conference Wiki

The non-DOD conference wiki is a tool that the NPS Travel Office has maintained to keep track of all conference requests, their dates approved at each stage, and all associated documents required. The wiki was established in May of 2013, shortly after the DON issued the Conference Approval Authority Guidance Memorandum on 5 April 2013. For purposes of this project, the non-DOD conference wiki was used to record completion/approval dates at each tier of the approval process for each data sample. The data was used to determine the average processing time at each stage in the routing chain to conclude whether a bottleneck existed. The second sample of data beginning 1 October 2013 was selected at a later date from the start of the process to ensure all errors in the process had been resolved.

c. Pay Scales

Pay scales for all individuals actively involved with each of the non-DOD conference documents (request form, brief sheet, and cover letter) were researched to calculate process costs generated by labor inputs. The General Schedule (GS), Administratively Determined (AD), and Active-Duty Military salaries were collected and averaged based on job description. The salary figures were then used to determine the average cost of processing each document in the conference packet.

As mentioned previously, a complete non-DOD conference request package consists of the non-DOD conference request form, non-DOD conference brief sheet, and the non-DOD conference cover letter. An average amount of time, based on the experience of the travel office staff (derived from both first-hand experience and observation) was then multiplied by the average labor rate of each job description at each level in the process as well as the average total cost associated with processing each conference.

2. Labor Cost Calculation

Capturing the cost of the policy impact of the non-DOD conference restriction requires an examination of labor requirements within the approval process itself.

However, instead of quantifying the labor cost of the process at the various stages of approval, we will examine the labor cost of each of the documents that comprise a successful non-DOD conference request package. The labor expenses required for each of these elements (from a wide range of personnel in many different offices/departments) will derive an estimated cost of each document, as a result of the policy impact. An activity-based costing methodology that is based on first-hand experience and observation in working on non-DOD conferences is being used to establish an estimated process cost for each element to include the non-DOD conference request, non-DOD conference brief sheet, the non-DOD conference cover letter, and the non-DOD conference package as a whole.

In an effort to capture and demonstrate the atypical process flow, the elements of the process costs are based on generalities and averages based on historical observations and first-hand experiences. Due to the varying nature and sheer volume of the requests that have been processed by the travel office during the period of 1 October 2013 and 30 April 2015, averaged figures are being used to fairly represent the general conference request that moved through the process flow.

Averages, however, are not completely accurate and do not precisely capture the labor and process requirements of each individual conference. For purposes of demonstrating a generalized overview of the process at a glimpse, however, the average figures reported below serve to quantify the process and the elements comprising that process to attribute a cost estimation that can lay the foundation for analyzing the expense requirements resulting from the policy. Outlier conferences (conferences that required re-work, had prior SECNAV approval, etc.) will be discussed later so as not to exclude their cost effect on the process.

a. Non-DOD Conference Request Form

The non-DOD conference process begins with the initiation of the non-DOD conference request form. This is a form generated by the NPS Travel Office to collect information to help streamline the approval process. Typically, the ODTA or ASA of the requesting member's departing initiates and completes this form. The requestor sends

information detailing the conference to the ODTA/ASA, who must refine and input the information into the form and then submit to the travel office. If elements are missing, they must solicit the information from the attendee or conduct their own research to supply the missing fields. The form itself calls for critical information necessary to process the conference. These elements include:

- Description of the conference (name, dates, and location)
- Conference sponsor
- Nature of attendance (presenter, attendee, participant, etc.)
- Source of funding (specific job order number and identity of funding sponsor)
- Specific outcomes of attendance

As referenced above, an average labor rate is being used to determine the labor cost of processing the non-DOD conference request form as different departments had different admin personnel (ODTAs or ASAs) fulfilling these forms.

The GS rate of an ODTA ranges between GS-5 and GS-6. The GS rate of an ASA, during the time-period that the data was being analyzed, was exclusively a GS-7. Due to the varying Steps within each of the GS rates among the two position titles, an average hourly rate from the appropriate years was used to demonstrate the hourly labor expense of processing the form.

The average hourly pay rate for the ODTA position is \$20.02 and the average hourly pay rate for the ASA position is \$23.35. As both positions could be working this particular document, an average hourly rate of \$21.69 is established. Based on historical observation from working in the travel office, it was estimated that the average time spent working on a non-DOD conference request is approximately 30 minutes. This generates an average labor cost of \$10.84 per non-DOD conference request form, as summarized in Table 7.

Table 7. Non-DOD Conference Request Form Cost

Non-DOD Conference Request Form			
Title	Time	Rate	Cost
ODTA	0.5	\$ 20.02	\$ 10.01
ASA	0.5	\$ 23.35	\$ 11.68
		Average Cost	\$ 10.84

Data used to create this are from Non-DOD Conference Wiki (2016) and Office of Personnel Management (2016).

Once the form is completed, it is then sent to the travel office, where a travel assistant is assigned the conference for further processing. Upon receipt of the completed request form, the travel assistant then initiates work on the non-DOD conference brief sheet.

b. Non-DOD Conference Brief Sheet

The next document comprising the complete non-DOD conference package, is the non-DOD conference brief sheet. This document provides an estimation of all costs relating to the conference attendance. The costs include travel (airfare or mileage), daily per-diem based on the location of the conference (lodging and meals), taxi fares, conference fees, and so forth. All expenses pertaining to the travel and attendance itself are recorded on this document to provide a detailed overview of the cost of the attendance.

This form is exclusively generated and submitted by the travel assistant in the travel office. The travel assistant is the resident subject matter expert on the use of the Defense Travel System, which is utilized to generate the cost estimate data for the conference. The travel assistant must also evaluate which is the most efficient means of conducting travel to and from the conference site. Many times, this requires a cost-comparison between the airports in Monterey, San Jose, San Francisco, and on some occasions Oakland. The location of the airport is also contingent on the airport the conference is near as different airport-to-airport combinations feature different contracted airfare rates. A great deal of expertise, experience, and time is required from the travel

assistant to determine the most cost-effective route for travel. At the same time, the travel assistant must also evaluate and measure supplementary travel expenses (hotel room taxes, airport taxis, taxis to and from the conference venue (if it is not held at a hotel), and even currency conversion fees (incurred by the GOVCC for OCONUS travel).

Conference costs, as directed by DON/AA, were to remain within thresholds of both \$600 per day and \$3,000 total per attendee. Conferences that exceeded these thresholds had to provide additional justification and explanation as to why costs exceeded the thresholds.

Upon the completion of the brief sheet by the travel assistant, the sheet was then sent to the approving official of the requestor, the department chair (for faculty and students) or equivalent supervisory manager (for staff), for review and signatory approval. After the approving official signed the brief sheet, the form was back to the travel assistant, at which point the brief sheet and conference request form were complete and would serve as a reference point for the non-DOD conference cover letter.

The position of the travel assistant was a GS-7, with steps ranging from 1-3. The average hourly rate of labor for the travel assistant is \$23.45. It was estimated that the average time spent by the travel assistant on processing the brief sheet was approximately 50 minutes. The AD pay-scale rate for a department chair is listed at \$80.43 per hour of labor. The pay rate of a GS-13 is approximately \$49.72 and the pay rate of a GS-15 is approximately \$69.11 for approving officials who are GS employees. The estimated average time spent by the AO (AD or GS) to review and sign the brief sheet was approximately 15 minutes.

Accounting for the labor of both the travel assistant and the approving official (averaged between the AD and GS positions), the estimated total labor cost of the non-DOD conference brief sheet is \$36.15, as presented in Table 8.

Table 8. Non-DOD Conference Brief Sheet Cost

Conference Brief Sheet			
Title	Time	Rate	Cost
Travel Assistant	0.83	\$ 23.45	\$ 19.54
Department Chair	0.25	\$ 80.43	\$ 20.11
GS-13	0.25	\$ 49.72	\$ 12.43
GS-15	0.25	\$ 69.11	\$ 17.28
		Average Cost	\$ 36.15

Data used to create this table are from Non-DOD Conference Wiki (2016) and Office of Personnel Management (2016).

c. Non-DOD Conference Cover Letter

The purpose of the non-DOD conference cover letter was to formally articulate the endorsement, by the NPS president, of the conference request as a whole. The cover letter was the culmination and final document that comprised the completed package that would need to be reviewed and approved through the NPS chain of command, before moving onwards to DNS and eventually DON/AA.

The cover letter had a strict template and structure that had to be followed; all the while citing and referencing the information and phrasing found in both the non-DOD conference request form as well as the brief sheet. On occasion, the conference letter had to undergo rework for alterations to the verbiage in the letter. The cost of this re-work is not being included, as this was not the standard occurrence for all cover letters.

The challenge in writing the cover letter was that it was a particularly labor intensive action as it required some degree of writing skill. In the letters themselves, the author would need to cite the mission essentiality of the attendance, the degree of participation in the attendance, and the benefit gained by the attendance in the correct vernacular and verbiage of an official naval memorandum. The cover letter also had to cite the daily cost and overall cost, per attendee, of the conference attendance. Per DON/AA's threshold of \$600 per day and \$3,000 total per attendee, the letters had to provide additional justification and rationale if the costs could not be reduced to meet the

thresholds. In addition, the cover letter had to cite all cost-savings measures taken to minimize any excess expense and be the most cost-efficient.

The cover letter, which served as the vehicle by which the NPS president would formally confer his endorsement and represent his approval of the conference attendance for DNS and DON/AA review, was expected to meet the highest quality standard.

The creation of the cover letter was and could be conducted by any one of four different entities to include the travel assistant, the NPS Travel Officer, Yeoman 2nd Class Petty Officer (YN2), or Navy Lieutenant (O-3). At the time, the travel office had the assistance of graduated students who, while waiting for their next duty assignment, were placed in different administrative capacities to support operations of the entire school. The rate of the students assigned to the travel office was that of an O-3, who primarily worked on generating the cover letters, alongside the rest of the travel office. In addition, a member of the flag administrative office, typically YN2, was also charged with generating the cover letters.

Due to this wide range of grades and positions, the labor rate for the cover letter heavily depends on an average hourly rate. However, due to intangible factors (primarily knowledge, training, and experience), the time required by the different entities to produce a cover letter varied as well. It was estimated that the travel assistant needed 30 minutes of labor to produce a cover letter while the travel officer required 20 minutes. It was also estimated that both the naval officer and YN2 required 25 minutes, on average, to produce a cover letter. The subsequent labor costs for each entity were averaged, in order to generate an estimated cost of \$13.50 per cover letter, as shown in Table 9.

Table 9. Non-DOD Conference Cover Letter Cost

Conference Cover Letter			
Title	Time	Rate	Cost
Travel Assistant	0.50	\$ 23.45	\$ 11.73
Travel Officer	0.33	\$ 49.47	\$ 16.49
PO2	0.42	\$ 23.18	\$ 9.66
LT	0.42	\$ 38.69	\$ 16.12
		Average Cost	\$ 13.50

Data used to create this table are from Defense Finance and Accounting Service (2016), Non-DOD Conference Wiki (2016), and Office of Personnel Management (2016).

d. The Complete Conference Package

Once the cover letter has been completed, the entire package (conference request form, brief sheet, conference agenda, and cover letter) follows a routing list that begins with the flag administrative office.

At the flag administrative office, the cover letter is re-produced on official NPS letterhead for the president's signature. The letter is also assigned a serial number.

The package is then brought back to the travel office for review by the travel officer. After the travel officer has reviewed the package, the conference is then handed-off to the NPS Chief of Staff. From the Chief of Staff, the package is routed to the provost for review before being routed to the NPS president for signatory approval on the Cover Letter and the package as a whole.

It was estimated an hourly labor rate for the flag administrative office personnel, historically a YN1, to be approximately \$27.01 per hour. It was also estimated that the time taken by the YN1 to process the cover letter and the conference package to be 40 minutes, generating a cost of \$18.01.

It was estimated that the travel officer, whose hourly labor rate is \$49.47, to take approximately 25 minutes on average, to review the conference package after receipt from the flag administrative office.

It was estimated that the Chief of Staff, an O-6 (Navy Captain) to spend approximately 30 minutes to review the conference package at an hourly labor rate of \$55.34. It was estimated that the provost, at an hourly labor rate of \$80.43 to spend approximately 15 minutes for review of the conference package after review from the Chief of Staff. It was estimated that the NPS president, at an hourly labor rate of \$97.12 to also spend approximately 15 minutes for review and signatory approval for the package, as presented in Table 10.

Table 10. Non-DOD Conference Package Cost

Complete Conference Package			
Title	Time	Rate	Cost
Flag Admin	0.67	\$ 27.01	\$ 18.01
Travel Officer	0.42	\$ 49.47	\$ 20.61
Chief of Staff	0.50	\$ 55.34	\$ 27.67
Provost	0.25	\$ 80.43	\$ 20.11
President	0.25	\$ 97.12	\$ 24.28
		Total Cost	\$ 92.67

Data used to create this table are from Defense Finance and Accounting Services (2016), Non-DOD Conference Wiki (2016) and Office of Personnel Management (2016).

Altogether, the final estimated cost of the total conference package, from the non-DOD conference request to the final signatory approval from the NPS president is \$153.16 per conference, as summarized in Table 11.

Table 11. Cumulative Cost Overview of Non-DOD Conference Process

Conference Request			
Title	Time	Rate	Cost
ODTA	0.5	\$ 20.02	\$ 10.01
ASA	0.5	\$ 23.35	\$ 11.68
		Average Cost	\$ 10.84
Conference Brief Sheet			
Title	Time	Rate	Cost
Travel Assistant	0.83	\$ 23.45	\$ 19.54
Department Chair	0.25	\$ 80.43	\$ 20.11
GS-13	0.25	\$ 49.72	\$ 12.43
GS-15	0.25	\$ 69.11	\$ 17.28
		Average Cost	\$ 36.15
Conference Cover Letter			
Title	Time	Rate	Cost
Travel Assistant	0.50	\$ 23.45	\$ 11.73
Travel Officer	0.33	\$ 49.47	\$ 16.49
PO2	0.42	\$ 23.18	\$ 9.66
LT	0.42	\$ 38.69	\$ 16.12
		Average Cost	\$ 13.50
Complete Conference Package			
Title	Time	Rate	Cost
Flag Admin	0.67	\$ 27.01	\$ 18.01
Travel Officer	0.42	\$ 49.47	\$ 20.61
Chief of Staff	0.50	\$ 55.34	\$ 27.67
Provost	0.25	\$ 80.43	\$ 20.11
President	0.25	\$ 97.12	\$ 24.28
		Total Cost	\$ 92.67
Cumulative Cost			\$ 153.16

Data used to create this table are from Defense Finance and Accounting Services (2016), Non-DOD Conference Wiki (2016) and Office of Personnel Management (2016)

3. Identifying the Non-Quantifiable Benefits and Costs

The analysis also revealed benefits and costs that were non-quantifiable. These benefits and costs are difficult to monetize, let alone quantify, as their effects influence multiple elements of operational efficiency and efficacy. There is, however, a tangible outcome stemming from that very influence, which either can positively or negatively affect the perspectives of both the individual and the institution. The following two tables reflect these costs and benefits, which were derived from the non-DOD conference request packages as well as personal communications with the authors and the attendees.

Table 12. Individual Perspective of Non-Quantifiable Costs and Benefits

Individual	Benefits	Costs
Process 1	Flexibility to unexpected/unplanned opportunities	
	Focus time/energy on other duties	
Process 2	Sanctioned attendance by external approval	Risk of denial or late approval
		Increased labor responsibilities
		Inflexible to unexpected/unplanned opportunities
Process 3	Sanctioned attendance by internal approval	Risk of denial or late approval
		Increased responsibilities
		Inflexible to unexpected/unplanned opportunities

From the perspective of the individual, as shown in Table 12, the primary non-quantifiable benefit of the Process 1 is the freedom to divert efforts on other tasks and responsibilities. As there is no restriction in place, this conventional does not interfere with the requestor's opportunity to gain the benefits of conference attendance. These benefits include professional development via networking opportunities (to secure funding for research projects), collaboration with other subject matter experts to progress research/curriculum efforts, accreditation, academic obligations for publication,

advancement in the area of study, and exposure of research to the industry other area experts that can be gained by conference attendance.

On the other end of the spectrum, the costs can negate and risk these opportunities. The process rigidity referenced earlier is something that negatively impacts the individual as inflexibility from the process (found in both Process 2 and Process 3) can result in missed opportunities.

The benefit resulting from the policy change is the formalized endorsement of attendance by either DON/AA (Process 2) or the NPS president (Process 3).

Table 13. Institutional Perspective of Non-Quantifiable Costs and Benefits

Institutional	Benefits	Costs
Process 1	Focus time/energy on other duties	Lack of audit readiness
		Lack of accountability
Process 2	Audit readiness	Institutional mission may not be represented
	Tracked internal and external accountability	
	Tracked internal and external endorsement	
Process 3	Audit readiness	Risk of denial or late approval
	Tracked internal accountability	Displeasure from requestors
	Tracked internal endorsement	Institutional mission may not be represented
	Focus time/energy on other duties	

As shown in Table 13, the primary non-quantifiable benefit to the institution for both Process 2 and Process 3, although varying in degree, is the accountability element that is derived from the formalized evaluation of NPS' conference activity. To an extent, this benefit can trickle down to the individual as the requestor directly receives the benefit of the formalized attendance, but the thematic factor of auditability is exclusive to the institution. The articulation of the need to attend a non-DOD Conference helps the institution monitor and endorse accountability regarding the value of the attendance to either an external decision authority (Process 2) or an internal decision authority (Process 3).

The cost to the institution is the same as that of the individual in that the opportunity cost of not being able to attend a conference, for the individual, is still a negative impact upon the institution. The intangible benefits to the individual (networking opportunities, increase of knowledge, collaboration with subject matter experts, peer feedback, and general professional development) indirectly benefit the institution as the conference requestor is a representative of the institution. While it is the individual faculty member, student, or staff member who attends a conference to present research and subsequently gain feedback and/or sponsor support, that individual member is simultaneously working towards and for the NPS mission.

F. SENSITIVITY ANALYSIS

1. Best Case Scenarios

The following scenarios demonstrate two circumstances that required little to no work on the part of the process. The deliverable documentation was not required for these circumstances and requestors merely needed approval to conduct the travel.

a. Blanket Approvals

Various outliers were discovered during the analysis. For example, the Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC), is known as the world's largest modeling, simulation and training conference. In December 2014, NPS was notified by DNS that there was a Navy-wide request for attendees at all naval organizations to attend this conference that had been pushed up to the SECNAV due to the total estimated cost. As this was a conference of great importance to the DON as well as the DOD, it was deemed mission essential by SECNAV on 19 November 2014. This type of approval was known as a blanket approval and the SECNAV, or DON/AA if the conference was under the \$100,000 threshold, would submit an approval memorandum with a maximum amount each organization with attendees was allowed to spend. In this case the amount for the conference was not to exceed \$390,000 and was not to exceed 185 attendees.

These types of requests were very helpful for the organizations due to the fact that a full conference packet was not required and approval was given in a timely manner in relation to the start date of the conference. These requests; however, were rare and often only included a small number of NPS attendees.

b. DOD Hosted Conferences

Another circumstance that was beneficial was if a conference was deemed a DOD hosted conference. In many cases, some conferences at first did not appear to qualify as DOD, but after some investigation on the part of the travel office staff member, it was considered a DOD sponsored conference and therefore did not require a conference packet to be routed through the tiers for approval. These were more frequent than the blanket approval conferences, but were still rare in relation to the total number of conference requests needing to be processed.

2. Worst Case Scenarios

a. Reworked Packages

A more frequent scenario included rework of conference packets within NPS. Such work could be requested at any stage of the routing of all tiers; however, it was easier to catch within the organization. It was also beneficial to the approval of the packet if all errors were caught before moving to the next tier, as it could delay or derail approval.

In cases where rework was required, the travel office staff member would be given the packet back and asked either to request more information from the attendee, to reduce costs of travel most likely due to it exceeding the thresholds, or because additional attendees had put in a request after the initial request had been submitted.

Each circumstance meant that the cost of processing these conferences increased from the average amount previously mentioned. This also meant that approval would take longer as the lead time deadline approached. For example, the Institute of Electrical Electronics Engineers (IEEE) 2014 Radar Conference request to attend was initially submitted 11 March 2014 for two attendees. The request had been approved by the NPS

president on 26 March 2014. The NPS Travel Office received an additional request for attendance from a third attendee on 1 April 2014, which meant that the travel office assistant would have to request a stop to the routing in order to add the additional attendee to the conference request. Based on the calculations for processing used above, the cost of processing this conference within NPS alone, would have been approximately \$22.74 instead of the average of \$153.16 for the processing of a conference without rework, as shown in Table 14. Since the packet had already been viewed and approved at all internal stages of the organization the cost is divided in half beginning to reflect a more accurate time scale.

Table 14. Non-DOD Conference Package Rework Cost Overview

Steps	Conference Package Rework		
	Initial Conference Package		\$ 153.16
	Title	Rate of Initial Request	Rate of Rework (1/2 of Initial rate)
2	Conference Request	\$ 10.84	\$ 5.42
3	Conference Brief Sheet	\$ 6.15	\$ 18.08
3	Conference Cover Letter	\$ 13.50	\$ 6.75
4-10	Reworked Conference Package	\$ 92.67	\$ 46.34
		Total Cost	\$ 229.74

Data used to create this table are from Defense Finance and Accounting Services (2016), Non-DOD Conference Wiki (2016) and Office of Personnel Management (2016).

b. Cancelled Conferences

Another circumstance that seemed to waste funds were situations where attendees decided not to attend a conference once the packet had already been submitted. In some cases the packet had already been approved by DON/AA, but attendance did not proceed. If situations like these did arise in a timely manner in relation to the start date of the conference, the relevant contact in the requesting department was notified to see if a different qualified attendee could take the original attendee's place

c. Denied Conferences

Another rare circumstance would be for a conference to be denied. While this only made up a small percentage of the total conference requests, it was a situation that did bring the process' effectiveness into light. Of the total number of conferences requested since the implementation of the non-DOD conference wiki, there have been just over 3% of conferences denied. One example was the Association of American Geographers Annual Meeting on 8 April 2014. The attendee was denied due to the justification for attending only. While attendance only conferences were not always denied, they were highly scrutinized due to the inactive role of the requestor. In this situation, NPS leadership could not acknowledge the essentiality of the request therefore the attendance was denied.

Another instance where a conference could be denied is when there was not adequate lead time given to route the request through the chain. For example, the request to attend the Environmental Systems Research Institute (ESRI) Federal GIS Conference on 10 February 2014 was submitted within the 30 day required lead time and therefore could not be processed. In these circumstances, the travel office staff would contact DNS to request if the packet would have a chance of being approved within the short timeframe, and more often than not the packet would not be routed; however, all possible options were attempted on the off chance that such a request could be approved.

G. MAIN FINDINGS

During the period of 1 October 2011 – 30 April 2013, the total number of all conferences attended by members of NPS totaled 365. After the implementation of the policy change (introduced on 7 April 2013, adopted in May 2013), the total number of attended conferences was 369. Despite the policy change, the impact to NPS was that there was a slight increase in the number of conferences attended, as summarized in Table 15.

Table 15. Comparison of Total Conferences Attended. Data from Defense Travel System (2016).

Total Conferences Attended	
1 OCT 2011 - 30 APR 2013	365
1 OCT 2013 - 30 APR 2015	369

Based on the analysis, the policy change did generate a cost-savings. The mandated multi-tiered approval process resulting from the policy change generated a 12% reduction in the total conference costs that were sampled for this report. The total cost of conference attendances from the period of the conventional process (1 October 2011 – 30 April 2013) totaled \$560,425.48, as shown in Table 16. In comparison, the total cost of conference attendances from the multi-tiered approval process (1 October 2013 – 30 April 2015) was \$490,564.55, as shown in Table 17.

Table 16. Conventional Process Conference Cost Metrics
Data from Defense Travel System (2016).

1 OCTOBER 2011 - 30 APRIL 2013	
Average Cost of Conference	\$ 5,604.25
Median Cost of Conference	\$ 3,230.45
Total Cost of Conference Attendances	\$ 560,425.48
Average Cost of Attendee	\$ 2,208.06
Median Cost of Attendee	\$ 1,979.30
Total Number of Attendees	287

Table 17. Multi-Tiered Approval Process Conference Cost Metrics.
Data from Defense Travel System (2016)

1 OCTOBER 2013 – 30 APRIL 2015	
Average Cost of Conference	\$ 4,905.65
Median Cost of Conference	\$ 2,947.46
Total Cost of Conferences Attendances	\$ 490,564.55
Average Cost of Attendee	\$ 1,792.31
Median Cost of Attendee	\$ 1,458.98
Total Number of Attendees	293
*The average number of days reported are business days and do not include weekends	

The cost of the multi-tiered process, as determined by the activity-based costing methodology, was established as being \$153.16 per conference. Shown in Table 11, the cumulative figure is comprised of the labor input for the non-DOD conference request (\$10.84), the non-DOD conference brief sheet (\$36.15), the non-DOD conference cover letter (\$13.50), and the non-DOD conference package itself (\$92.67).

Table 18. Comparison of Conference Data Sets.
Data from Defense Travel System (2016)

Comparison	1 OCT 11 – 30 APR 13	1 OCT 13 – 30 APR 15	Delta	Percentage Change
Average Conference Cost	\$ 5,604.25	\$ 4,905.65	\$ (698.61)	-12%
Median Conference Cost	\$ 3,230.45	\$ 2,947.46	\$ (282.99)	-9%
Total Cost of Conference	\$ 560,425.48	\$ 490,564.55	\$(69,860.93)	-12%
Average Cost of Attendee	\$ 2,208.06	\$ 1,792.31	\$ (415.75)	-19%
Median Cost of Attendee	\$ 1,979.30	\$ 1,458.98	\$ (520.32)	-26%
Total Attendees	287	293	6	2%

The cost-savings per conference, as a result of the multi-tiered approval process (within NPS), was \$698.61 as shown above in Table 18. Based on this figure, this cost-savings figure of \$698.61 was not entirely off-set by the average cost of the conference process figure of \$153.16. To reiterate, the cost of the processing for DNS and DON/AA were, and are, unknown, and so it was assumed that their processing expense would further reduce the cost-savings margin.

The data from the non-DOD conference wiki also yielded information regarding the timeline that a given conference request experienced from the day that a request had its wiki entry created by a travel assistant to the day that the conference attendee received final approval from DON/AA. In addition, data concerning the timeline, internal to NPS, was also yielded, as presented in Table 19.

Table 19. Multi-Tiered Approval Process Timeline.
Data from Non-DOD Conference Wiki (2016)

Average # of Days from Travel Assistant to NPS President Approval	12.58
Average # of Days from Travel Assistant to DON/AA Approval	34.79
Average # of Days from NPS President Approval to DON/AA Approval	14.33
Average # of Days from DON/AA Approval to Conference Start	25.16

The non-DOD conference wiki also revealed data pertaining to the justifications cited in the request forms, which would then provide detailed justifications and descriptions for the brief sheet and cover letter. The cited justifications were broken down into seven categories: presentation, attendance, networking, publication, professional development, collaboration, and participation. More than one of these justifications were cited in each of the conference request forms. Of the 100 conference request forms however, presentation was cited most frequently at 69 times. Professional development was the second most cited justification due to the scrutiny of DON/AA. It was imperative that attendance alone was not cited as the main reason for the request; if it was, often the request was denied, as shown in Figure 3.

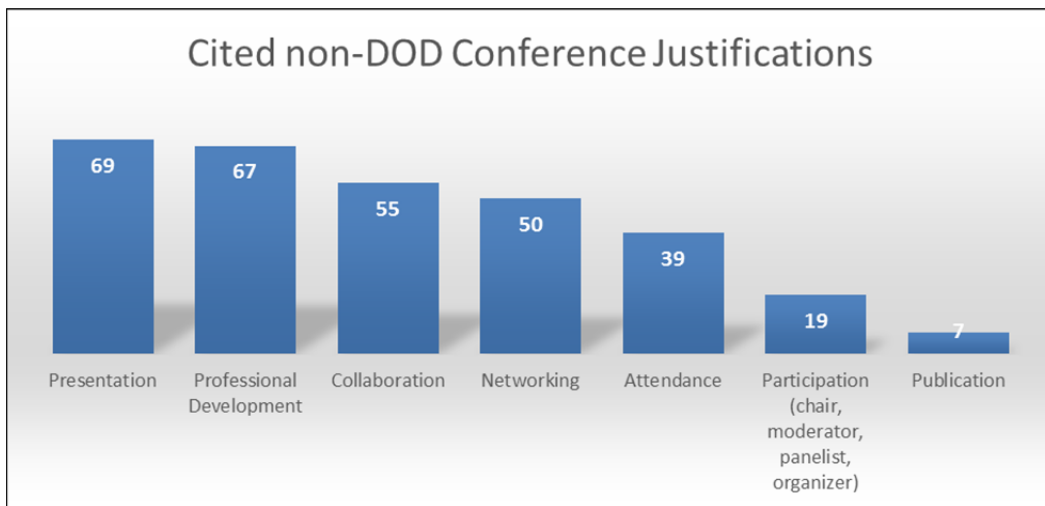


Figure 3. Justification for attendance. Data from Non-DOD Conference Wiki (2016).

H. PROCESS OUTCOMES

This study determined that the cost savings to ensure accountability of the attendee and the institution do not outweigh the monetary costs involve in processing each request. All three process options below have their own costs and benefits that are taken into account while assessing their effectiveness and efficiency to the individual, the institution and the DOD.

1. Process 1: The Conventional Process

In comparison with the multi-tiered process, the conventional process showed a 12% increase in the conference travel costs. This difference is likely due to the vetting of each conference request to ensure travel cost discretion, as part of the requirements of the multi-tiered process. Reverting back to the conventional process, or the absence of a non-DOD conference procedure, would result in not having such a reduction in travel costs.

The benefit of this process, however, includes the cost savings of not having to process the requests at each tier level. This would eliminate the time required for processing and reduce the likelihood that a conference would be denied or refused because the request did not meet the necessary lead time.

2. Process 2: The Multi-Tiered Process

The multi-tiered process includes continuing as is with approval at tier two, which is DON/AA for conferences under \$100,000 and tier one, which is the SECNAV for conferences exceeding \$100,000. The costs of this process would include the processing costs for all staff involved in routing the conference packet through the organization, which have been calculated above. Those costs of processing the packet at the DNS, DON/AA and occasionally SECNAV, however are unknown, but are assumed to extend beyond those cost calculated in this study. The cost of processing within NPS was estimated to be \$153.16 in labor, per conference request. This figure does not assume rework, which was estimated to bear a total cost of \$229.74.

While some form of a process to guarantee that each request is mission essential and is in the best interest of the institution and the DOD as a whole, the need to extend

the authority to DON/AA produces a costly and time-consuming undertaking. This study has determined that this added processing does not yield any added benefit that could not be achieved by the abridged process.

3. Process 3: The Abridged Process

The abridged process would include having the final approval authority given to the flag level officer at each institution. Based on the data this would result in a reduction of processing costs at the next level tier above the institution. The caveat of the unknown processing expense for DNS and DON/AA labor expenses from the multi-tiered process does not detract from the savings effects of the abridged process.

The abridged process would possess a cost-savings that was not diminished by the reported processing expense. Table 18 shows that a 12% cost-savings was the result of the policy; the average cost of a conference during the period of the conventional process was \$5,604.25 with the average cost of a conference during the period of the multi-tiered approval process being \$4905.65. The estimated cost-savings was \$698.61. After subtracting the labor cost of a non-DOD conference from this figure, the cost savings for the average conference is \$545.45, which is a 9.7% cost-savings.

The abridged process does incur costs; however, the benefits of the vetting process through the organization does provide a greater chance of audit readiness due to the accountability. As there has not been a total reduction in the number of conferences or the number of conference attendees, the abridged process, while still yielding processing costs would reduce the lead time required to process each request. In addition, this could reduce the likelihood of not receiving approval in a timely manner.

VI. THE CONCLUSION

The implementation of the new non-DOD conference travel policy in 2013 to eliminate any unnecessary costs, not directly aligned with the NPS mission, and the subsequent adoption of the multi-tiered approval process for travel requests had a significant impact on NPS as it is an institution devoted to higher education that must also adhere to the regulations required of a naval entity. This report conducted a CBA to examine the impact of the 2013 non-DOD conference policy change on the NPS community. The CBA compared three alternate processes to include the conventional process used prior to the policy change, the multi-tiered process resulting from the policy change, and an abridged approval process proposed in this report. The analysis examined the costs and benefits of each of the processes from the perspective of the individual, and of the institution, to determine which process had the greatest net benefit. As part of the effort to identify costs and benefits, the report focused on quantifying and monetizing the labor expense required of the multi-tiered approval process, capturing the process cost.

This report addressed the following research questions:

1. Did the implementation of restrictive policies and control mechanisms regarding attendance of a non-DOD conference generate cost-savings in FY 2015, as compared with costs in FY 2013?
2. Were cost-savings offset by the spending associated with ensuring that the conference request packages met the criteria set forth in the conference guidance publications?
3. Did the conference restrictions cause a reduction in attendance?

The hypotheses for each of these research questions were as follows:

1. The policy did affect cost savings, as limitations were in place to influence both the volume of attendances and the nature of travel expenditures.
2. The process costs involved with initiating, compiling, and routing a complete non-DOD conference package exceeded the cost-savings.
3. The restrictions reduced the number of conferences attended and the number of attendees, in comparison with the prior fiscal years.

The main findings of this report are summarized below.

1. The implementation of restrictive policies and control mechanisms regarding attendance of a non-DOD conference generated an estimated cost-savings of \$698.61 per conference and \$415.74 per attendee in FY 2015, as compared with costs in FY 2013.

The CBA analysis revealed a 12% cost reduction in the average total cost per non-DoD conference under the new non-DoD conference travel restrictions. The data in Table 18 shows the average cost of a conference during the period of the conventional process to be \$5,604.25, while the average cost of a conference after the implementation of the policy change comes at \$4,905.65. The analysis also found that the average cost per attendee experienced a 19% cost reduction with the new restrictions in place. The average cost per conference attendee prior to the policy change came at \$2,208.06, while the average cost per attendee, after the restrictions were introduced in 2013, are lower, at \$1,792.31. The average savings of \$698.61 per conference and \$415.75 per conference attendee indicate that the travel restriction policy generated cost savings.

2. The cost-savings were offset by the processing costs associated with ensuring that the conference request packages met the criteria set forth in the conference guidance publications.

The average cost of processing a non-DOD conference request at NPS was estimated in this study to be \$153.16, while the cost of processing conference requests that required re-work was estimated to be \$229.74. The average cost savings of \$698.61 per conference, as shown in Table 18, is offset by the processing cost of \$153.16 per conference request, generating a net cost-savings of \$545.45 per conference. For conferences requiring re-work, the net cost-savings is lower, at \$468.87. While the processing expense for DNS and DON/AA was not estimated in this study, any additional costs faced by DNS and DON/AA as a result of the new travel processing requirements policy would further reduce the margin of savings.

Another finding from this study's analysis is that the non-DOD conference restrictions put in place in 2013 does not appear to have caused a reduction in conference attendance. Data on NPS travel requests from FY12 to FY15 show no significant change in the number of conferences attended following the implementation of the restrictive travel policy. The data show that of the 100 conferences from the period of the

conventional process, there were 287 attendees, while the total number of attendees from the 100 conferences sampled from the post-policy period was 293, a 2% increase in the number of conference attendees per 100 conferences sampled. .

A. RECOMMENDATIONS

Based on the analysis conducted in this study, this report recommends that NPS adopts an abridged travel request approval process for non-DOD conferences to decrease administrative costs and therefore increase cost-savings from the restrictive travel policy, while maintaining the benefit of accountability.

The abridged conference request process follows the same processing steps as the multi-layer process; however, it limits the scope of the approval process to the NPS president as the final conference approval authority and removes the DNS and DON/AA approval process for conferences that fall under the \$50,000 threshold. For conferences that exceed the \$50,000 threshold, the abridged process would continue to submit to DNS and DON/AA for further review and approval.

By enabling the NPS president (or equivalent organizational head at the general-officer or SES level) to be the final approval authority for conferences that are less than \$50,000, NPS would benefit from a more cost-effective and time-efficient process. The cost and time savings will work to benefit both the individual attendee and the school itself. With an abridged approval process, the labor expenses associated with the processing of the travel requests are limited to the estimated processing expense of \$153.16. The lower processing labor costs also mean a reduction in the time needed for conference approval. With the current multi-tiered process, the average number of days from the approval of the NPS president to DON/AA approval is 14.3 days. By removing this waiting period, the attendee can benefit from a shorter approval process.

However, for conference attendances that exceed the \$50,000 cost-threshold, requests should be escalated to the DON/AA level to ensure accountability due to the size of funding that is required.

Based on the analysis conducted in this report, we found that some degree of vetting and oversight is beneficial. Accountability is an intangible and indirect benefit that is critical for the continued successful operations of a federally funded institution. While it is not immediately explicit, the benefit of accountability is one that affects both the individual and the institution. The new restricted policy regarding non-DOD conference travel is a control mechanism designed to mitigate unnecessary expenditures in order to reduce fraud, waste, and abuse. To remove the formal mechanisms for accountability would be as damaging as increasing the number of stages in the approval hierarchy.

The immediate benefit of the abridged approval process comes in the form of a conference request that can be approved more quickly and requires less processing time, while maintaining oversight and accountability. As the NPS community is already familiar with the new, multi-layer process regarding travel requests, the abridged process would not be a drastic change to the current status quo. This time reduction in the span of the approval process can minimize the risk of wasted opportunity cost as well as the amount of labor hours needed. The process hierarchy becomes shortened and places the responsibility at the organizational level for conferences at, or below the \$50,000 threshold. Conferences exceeding this threshold would be subjected to further scrutiny from DNS and DON/AA. Given that the number of conferences exceeding the \$50,000 threshold is low, with the typical conference barely exceeding \$20,000, the involvement of DNS and DON/AA would be limited only to a smaller number of conferences.

As a naval institution, NPS is held accountable to the standards and expectations set forth by the Navy. As an academic institution, NPS is also accountable to its respective academic fields, the sponsors who fund tuition efforts, accreditation boards, and the faculty members who support its teaching and researching mission, and who, by nature of their positions, must adhere to professional requirements required in academia. NPS must find the balance between satisfying the requirements of academia and the Navy, all the while continuing to achieve successfully its mission.

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